

Only the Japanese version is authentic.

Business Continuity Guidelines 1st ed.

**—Reducing the Impact of Disasters and
Improving Responses to Disasters by Japanese Companies —**

August 1, 2005

**Central Disaster Management Council
Special Board of Inquiry on enhancing disaster management
by utilizing the private sector and markets**

**Corporate Evaluation/ Business Continuity Working Group
Cabinet Office, Government of Japan**

Table of Contents

[Points]

1. What is Good Practice in Business Continuity?	1
2. Characteristics of Good Practice in Business Continuity	2
3. Characteristics of these Guidelines	2
4. Purpose and Issues Facilitating Good Practice	3
5. Status of these Guidelines	4
6. Using a Checklist	4
I Necessity of Business Continuity and Basic Concept	5
1.1 Necessity of Business Continuity and Points	5
1.1.1 Necessity for Making Efforts to Ensure Business Continuity at the time of a Disaster	5
1.1.2 Points in the Concept of Business Continuity	5
1.1.3 Characteristics of Business Continuity Plan in Japan to be Prepared for Wide-area Natural Disasters	6
1.2 Basic Concept	6
1.2.1 Anticipated Disaster Risks	6
1.2.2 Concurrent Requirements Other than Business Continuity	7
1.2.3 Status of each Item Enumerated in these Guidelines	8
1.3 Continual Improvement	9
II Contents of Business Continuity Plan and Good Practice	10
2.1 Policy	11
2.2 Plan	11
2.2.1 Identification of Disasters to be Examined	11
2.2.2 Evaluation of Degree of Impact	12
2.2.2.1 Estimation of Suspension Period and Response Capacity	12
2.2.2.2 Determination of Critical Operations	12
2.2.2.3 Setting a Target Recovery Time	13
2.2.3 Prediction of Probable Damage to Critical Operations	13
2.2.4 Extraction of Key Elements	15
2.2.5 Development of a Business Continuity Plan	16

2.2.5.1	Clarifying the Chain of Command	16
2.2.5.2	Securing the Functions of the Head office and Other Key Sites	17
2.2.5.3	Transmitting Information Outside and Information Sharing	17
2.2.5.4	Backing up the Information System	18
2.2.5.5	Supplying Products or Services	18
2.2.6	Concurrent Requirements Other than Business Continuity	19
2.2.6.1	Securing and Confirming the Safety of Life	19
2.2.6.2	Mitigating Possible Damage to Offices, Worksites, and Equipment	20
2.2.6.3	Preventing Secondary Disasters	21
2.2.6.4	Coordinating with the Local Community and Contributing Thereto	21
2.2.6.5	Mutual Cooperation and Mutual Assistance	22
2.2.6.6	Other Considerations	22
2.3	Exercising and Control	23
2.3.1	Implementation of Response Actions in line with a Business Continuity Plan	22
2.3.2	Documentation	23
2.3.2.1	Formulating Plans and Manuals	23
2.3.2.2	Formulating Checklists	24
2.3.3	Financing	24
2.3.4	Confirming whether Plans Function in Practice	24
2.3.5	Importance of Business Judgment in the Event of a Disaster	24
2.4	Providing Education and Training	25
2.5	Inspection and Corrective Actions	25
2.6	Review by the Management	25

III	Recommendations to the Management and the Economic Community	27
-----	--	----

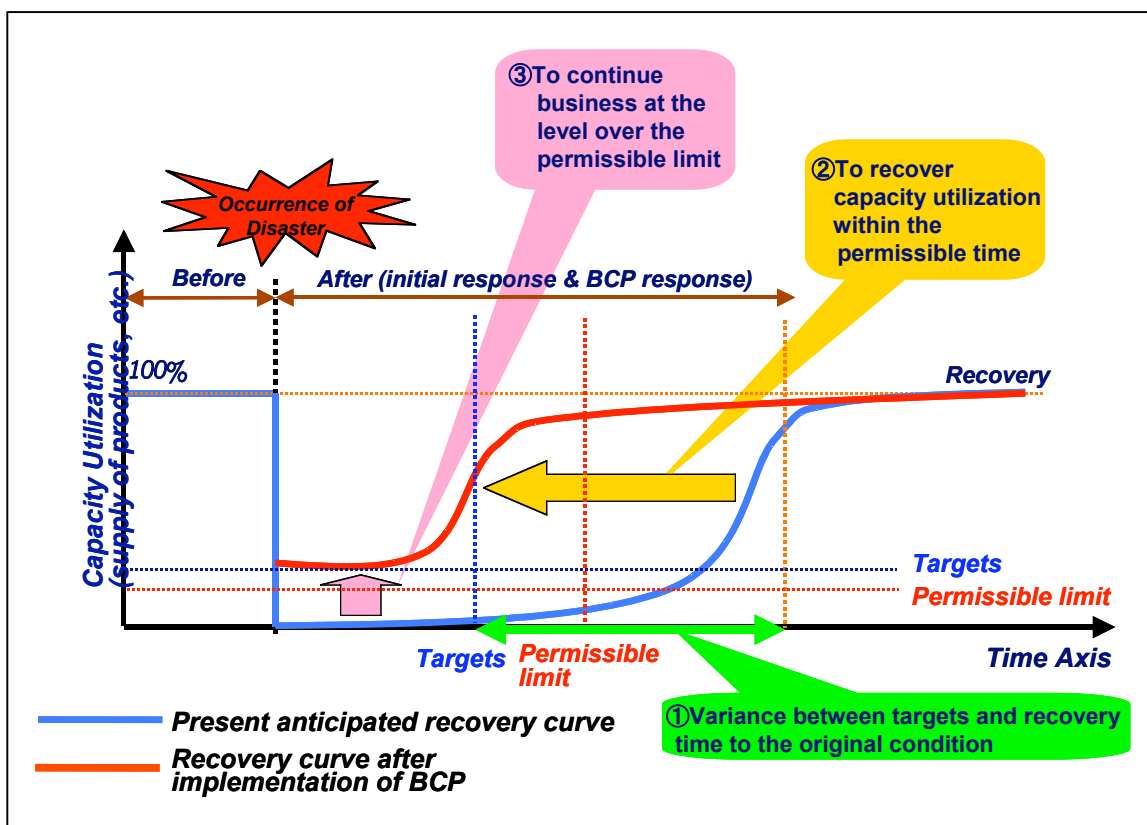
Appendix: Glossary	28
--------------------------	----

[Points]

1. What is Good Practice in Business Continuity?

Interested parties, including clients, require that after damage is incurred due to disasters or accidents, companies do not suspend critical operations, or if they are suspended, they resume operations as soon as possible. Business continuity is also ranked by companies as a strategic issue at a management level to protect the company from losing customers to other companies, decline in market share, and negative impact on a company's reputation due to the interruption of critical operations.

A plan that aims to ensure business continuity is called a "Business Continuity Plan" (BCP). Its contents typically consist of securing back-up systems and offices, immediate response personnel, and prompt confirmation of safety. These are achieved by ensuring good practice according to business activities and corporate size. Plans should be prepared by every company, considering that implementation is possible without making large investments.



Concept of Business Continuity Plan (BCP)

Europe and the United States are ahead of Japan in ensuring good practice in business continuity. While there are considerable overlaps with previous general disaster prevention measures of Japanese corporations, there are some areas where core concepts and approaches differ. Therefore, it is recommended that companies prudently review whether disaster prevention practices conform to the concept of business continuity, with the exception of those that are already advanced in this field.

2. Characteristics of Good Practice in Business Continuity

Good practice in business continuity, by which a company develops a business continuity plan after carrying out the necessary examinations, conducts training, and reviews the plan, has the following characteristics that differ from the previous disaster prevention measures.

- (1) A plan is developed in anticipation of great damage that might have significant adverse effects on business.
- (2) It is recognized that the resources to be used after a disaster are limited, and efforts should to concentrate on critical operations.
- (3) Each person in charge of each critical operation extracts cases where the continuity of critical operations would be jeopardized by damage, and carries out examinations continually. As a result, every probable disaster is anticipated.
- (4) Important factors (bottlenecks) are identified that are essential for the continuity of critical operations, and which would take time and labor for re-procurement and recovery, and might prevent recovery, and are dealt with selectively.
- (5) A target recovery time is set for critical operations and advanced preparations are made for its achievement through a coordinated approach.
- (6) One management system, including business management and decision-making and administration at the time of emergency is set up. It incorporates elements of crisis management and emergency response, and includes maintaining the chain of command, communicating and sharing information, and reflects the importance of business judgment at the time of a disaster.

3. Characteristics of these Guidelines

- (1) Upon recognizing that Japanese companies are well acquainted with natural disasters, and tend to feel unable to act if actual damage is diverse and is not as expected, the significance of planning is explained, and how to start is proposed. Specifically, a realistic approach is illustrated, in which it is recommended that the first disaster anticipated is an earthquake, which is also a concern overseas as one can cause great damage. Then, the types of disaster anticipated are gradually increased.
- (2) To improve preparations, it is assumed that a large investment is not always needed, and it is recommended to proceed with specific considerations on what can be done, making the most of existing resources and taking a coordinated approach (it is recommended not to deal too closely with earthquake-resistance refurbishment in planning).
- (3) Based on a situation where small and medium-sized businesses, which are integrated into the supply chain, are required to ensure best practice in business continuity, the goal is not to satisfy every element of business continuity (as in Europe and the United States) for the moment, but to deal practically with what can be done. On the other hand, based on a close look at expected trends of international standardization, efforts are made so that measures are compatible, but an international response that might duplicate investment is not required outside these Guidelines.
- (4) It is made clear that business continuity is not the first priority of companies, but immediately after a disaster occurs, the focus should be on securing safety of life and

preventing secondary disasters. The response to business continuity should involve cooperation with communities to secure consistency with previous disaster countermeasures.

- (5) Japanese companies, which have faced natural disasters affecting wide areas, have included cooperation with and contribution to communities, mutual cooperation and assistance in their disaster prevention measures. The administration has also announced damage anticipated to be caused by wide-area disasters to urge good practice by an entire community. These Guidelines incorporate such characteristics among their elements. They are in a position that we should transmit to overseas inclusion of such elements.
- (6) It is recommended to carry out continuous improvements and not to seek perfection from the outset. It is pointed out that systematic practice by the management of an entire company is important, and if there is an existing management system, it is recommended to conduct activities consistent with that system.

4. Purpose and Issues Facilitating Good Practice

Japanese companies have, based on experience of natural disasters including earthquakes, carried out measures such as improving earthquake-resistance and developing plans for recovering from anticipated damage, in conjunction with governmental systems and activities, and the resulting disaster prevention measures have been evaluated to be more advanced than those in other countries. But, it must be acknowledged that we lag behind in terms of business continuity planning, which consists of a business strategy that would prevent the interruption of critical operations at the time a disaster or accident is encountered. If we promote good practice in business continuity, the risks to a corporation itself and of chain repercussions will be decreased, and indirect damage might be reduced. These are the motives for preparing these Guidelines.

Although it continues to be very important to maintain previous disaster prevention measures, which develop damage mitigation measures in preparation for disasters which are of great concern in each business office, there are many aspects that differ from good practice in business continuity in its concepts and approaches. As there is some overlap in the contents of countermeasures, it is easier to understand that we take it that “both will be promoted.” (The central and local governments will, for former disaster prevention measures, continue the practice of estimating and publishing damage anticipated from disasters and the prospects of recovering infrastructure and investments in disaster prevention activities.)

In facilitating good practice in business continuity, the first concept concerns several points that became issues in the course of considering these Guidelines, which are stated below.

First, it should be repeated here that securing safety of life is very important at the time of a disaster, although it is recommended that companies pursue business continuity as an important objective.

Secondly, in a business continuity plan, compared to Europe and the United States, where the focus is on such human-related risks as terrorism among anticipated risks, natural disasters are the focus in Japan. Natural disasters generally cause damage over a wider area than artificial risks, and are difficult to prevent, which we think makes effective measures significantly different. Therefore, Japanese companies should not follow the examples of business continuity practiced in

Europe and the United States as they are, but develop one that conforms to the situation in Japan. On the other hand, we aim at a plan with a common framework so that good practice in business continuity by Japanese companies is at a high level by global standards.

Thirdly, these Guidelines are mainly intended for private enterprises, and emphasize the necessity and the effectiveness of corporations acting in cooperation, being conscious of supply chains. To make an effective business continuity plan, administrative understanding and proper responses are also required. For example, if administrative authorization is necessary for repairing facilities required by companies to resume business, it is desirable that each related administrative organ should respond while recognizing the importance of business continuity in disaster damage mitigation.

5. Status of these Guidelines

These Guidelines indicate to Japanese companies the outline and the effects of good practice in business continuity, and facilitate companies to determine independently on the basis of the social significance of disaster prevention, the importance to transactions and the merits received. The government and the special investigation committee, of course, expect that good practice shall be disseminated, and it is hoped that each company will consider it positively.

6. Using a Checklist

“Business Continuity Guidelines Checklist” was prepared so that specific application of these Guidelines can be checked easily.

This Checklist is also useful for confirming what is necessary for good practice in business continuity. It is expected that the Checklist will be used repeatedly while making continuous improvements to strengthen the business continuity activities in the company.

I Necessity of Business Continuity and Basic Concept

1.1 Necessity of Business Continuity and Points

1.1.1 Necessity for Making Efforts to Ensure Business Continuity at the time of a Disaster

In Japan, where disasters occur frequently, it is desired to build a disaster-resistant country with cooperation among government, corporations, and citizens. In particular, under circumstances where the interruption of corporate activities might have adverse effects on a global scale due to the globalization of economies, it is becoming more important for the business sector to develop its own preparations to continue business at the time of a disaster, and recover critical operations to the level prior to the disaster. Looking to communities, it is desired to make companies disaster-resistant to secure employment and supply chains in a disaster-affected area.

On the other hand, it must be emphasized that elaborate and systematic preparations for disasters by companies have recently been highly valued by client companies and markets. In particular, it has become widely recognized that promoting good practice in business continuity by companies, which is the focus of companies in Europe and the United States, is effective in terms of increasing corporate value.

1.1.2 Points in the Concept of Business Continuity¹

Preparations for natural disasters by Japanese companies are generally advanced by global standard. Even with this confidence, we should study the concept that "we focus on and make preparations for business continuity, regardless of type of disaster and risk that are the causes."

In Japan, where natural disasters occur frequently, in companies responding to disaster prevention, it seems that there are many that first anticipate disasters and then develop measures upon assuming such anticipated disasters. Based on experience of natural disasters, as to specific responses after a disaster occurs, it is believed that we have no choice but to make a determination after comprehending actual damage. It is necessary to consider, however, whether this attitude results in an insufficient understanding of "promoting advance preparation regardless of the type of disaster,"² a key point in the concept of business continuity.

Japanese companies should note that if measures for business continuity are specifically considered on the assumption of an earthquake by each department in charge of critical operations, there are many common measures for business continuity in the case of other natural and man-made disasters. If thinking has reached this point, Japanese companies can understand the significance that foreign companies, where the weight of natural disasters is relatively low in terms of risk, have developed business continuity plans regardless of types of disaster.

¹ In these Guidelines, BC (Business Continuity) is described as "business (jigyo) continuity" and changed from the previous expression (business (gyomu) continuity." The reason for the change is to make it consistent with documents recently published in Japan, and also is because it was judged to be easier to explain that "jigyo," which consists of several "gyomu."

² Many aspects of good practice in business continuity fall under preparations made regardless of types of disaster, and as examples that are easy to understand, we may consider implementation of safety confirmation, and emergency contact and back-ups when we cannot enter offices, and target recovery time.

1.1.3 Characteristics of Business Continuity Plan in Japan to be Prepared for Wide-area Natural Disasters

As stated above, a business continuity plan is not prepared after clarifying potential risks, but is developed for the purpose of continuing critical operations whatever risks arise.³

In Japan, however, as more damage results from earthquakes and wind and water damage, which cause damage over a wide area, a characteristic of disaster responses of Japanese companies is likely to be cooperation with local communities and other corporations. Expectation for contributions to the localities by companies were high, and at the time of previous disasters, alliances with other companies in supply of goods have been made. Therefore, it is conceived that the following points will be more actively incorporated than in the case of foreign companies in specific business continuity plans.

These Guidelines have been developed taking into account a trend toward international standardization in the business continuity. If such cooperation with local communities is incorporated into a business continuity plan as a voluntary item, it should not be a problem in conforming to international standards, and it is conceived that Japan is expected to communicate its characteristics overseas and assert its importance, because many natural disasters occur elsewhere around the world.

1.2 Basic Concept

1.2.1 Anticipated Disaster Risks

When a company develops an action plan for disaster prevention, as it begins to think about what risks should be assumed, big questions emerge.

As stated above, business continuity plans are developed with the purpose of continuing critical operations regardless of risk, and preventing an interruption of business. If “regardless of types of risk that could cause an interruption of business” it is initially recognized that “any risk should be considered,” Japanese companies might be reluctant to act as they can think of many possible disaster risks. Therefore, an approach that is easier to understand should be proposed to companies thinking about where to begin.

On the other hand, if the international standardization of business continuity plans progresses (as can be imagined from the examples of previous international standards), it seems that “the anticipated risks each company selects” will not be included in the determination of elements that conform to standards, and will be left to the judgment of individual companies.

Accordingly, in these Guidelines, which have the purpose of encouraging a variety of companies to have a basic approach to good practice, it is recommended to start in-house activities by assuming earthquakes are an anticipated risk, which is the easiest risk to imagine, and is considered to be the greatest natural disaster risk that can be faced (also as regarded in other countries). A company may start by selecting another source of risk (or a number of sources of risk) that is of great concern.⁴

³ Major disasters that a business alone can never respond to may be excluded.

⁴ Other natural disaster risks such as typhoons and local heavy rains or man-made risks such as closing down an office due to disease, terrorism, fire, riot, or wide-area black-out may be accepted.

In sum, it is important to present a job site where critical operations are carried out with working targets that are easy to tackle with and start considering specific measures required for business continuity. For that purpose, the example of an earthquake (or any other risk) is illustrated. At the stage when specific measures emerge, if you make personnel think whether the measures are effective or not for risks other than earthquakes, or they are examined at regular reviews of the plan, you will steadily come closer to an adequate business continuity plan.⁵

1.2.2 Concurrent Requirements Other than Business Continuity

The significance and the importance of business continuity are stated above as important matters to be considered by companies when a disaster occurs, and at least the following three points also need to be considered. Basic disaster responses had been previously taken in Japan. It is true that there are many overlaps, and it is unlikely that the idea putting too much priority on business continuity can be understood. In fact, the type and the level of priorities are left to the judgment of each company.

■ Securing Safety of Life

In industries where customers visit shops or remain in facilities, priority should be put on securing the safety of life of customers.

Naturally, securing the safety of life of people engaged in business includes officers, employees of the company, personnel of affiliates, temporary workers, and personnel of cooperating companies.⁶

■ Preventing Secondary Disaster

In manufacturing industries, for example, it is necessary to carry out drills to prevent secondary disasters in terms of securing the safety of a neighborhood, which includes fire, collapse of buildings and structures in neighboring areas, and leakage of chemicals.⁷

■ Contribution to and Symbiosis with Local Communities

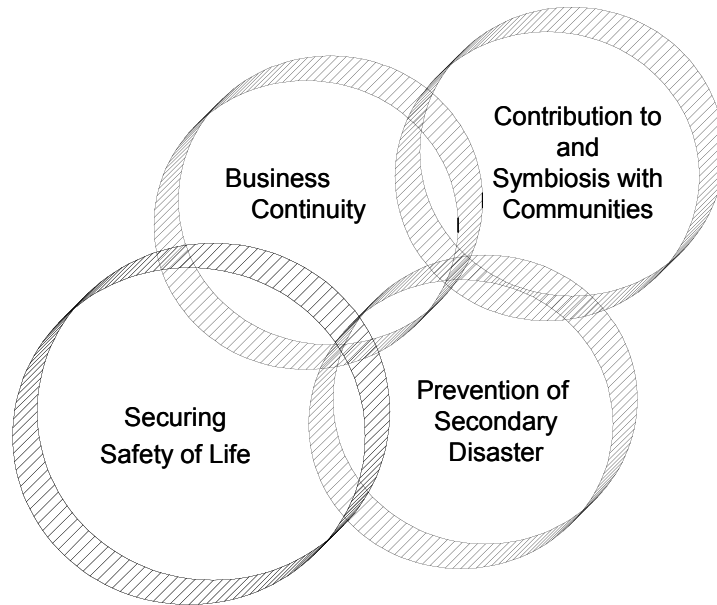
In the event a disaster occurs, the earliest possible recovery of local communities should be sought in cooperation with citizens, administration, and client companies. Among local contributions, provision of aid funds, premises, and materials are generally conceived. It is desirable to give support using the assets of the company, such as dispatching engineers and volunteers. It is also desirable that there is close cooperation.⁸

⁵ In fact, in the business continuity plans of companies in Europe and the United States, anticipated risks are acceptable unless the other party, subject of explanation, poses questions. There seems to be a common understanding that what is important is that a company possesses a business continuity plan and has a process for conducting training and reviews.

⁶ Specific measures are evacuation plans, confirming safety, stockpiling water, hardtacks, and lavatories; making earthquake-resistant improvements; stockpiling rescue materials; and, providing education and training.

⁷ For example, it is natural that companies possessing dangerous substances should always comply with the handling procedures provided for by laws and regulations, and it is natural that the importance of doing so will increase at the time of a disaster. It is essential to communicate the status of dangerous substances to neighboring areas, as well as confirm the situation quickly.

⁸ Depending on the willingness of local municipalities, if possible, it is conceivable to execute agreements on local contributions in advance.



Targets of Business Continuity

1.2.3 Status of each Item Enumerated in these Guidelines

These Guidelines aim to enumerate common, basic items required for promoting preparations for disasters and measures for business continuity that are directed to small, medium-sized, and large enterprises⁹. They have no intention of being provided as mandatory standards, however, and implementation of each item is left to discretion of individual companies. Therefore, each item may be selected depending on site conditions, culture, and strengths of an individual company.

What should be emphasized first are measures deemed desirable by the government, and that these Guidelines do not presuppose large investments, but mainly assume measures taken by enterprises to inspect, plan, and use resources effectively. Therefore, it is desirable that companies specifically consider responses based on these Guidelines as broadly as possible.

These Guidelines explain basic items that are common to all companies. In Japan, other guide books on business continuity have already been published. They include “Guide Book for Developing Contingency Plans in Financial Institutions” by (Foundation) Financial Information System Center (FISC) and “Business Continuity Plan Development Guidelines” (Report of Study Group on How Information Security Governance should be applied in Corporations and References) by Ministry of Economy, Trade and Industry. We believe it is natural that existing guide books should be respected in the relevant business field, and that these guide books will be informative to companies in other business fields.

⁹ Although these Guidelines are prepared for private enterprises, the concept of business continuity is useful to all organizations, including central and local governments.

1.3 Continual Improvement

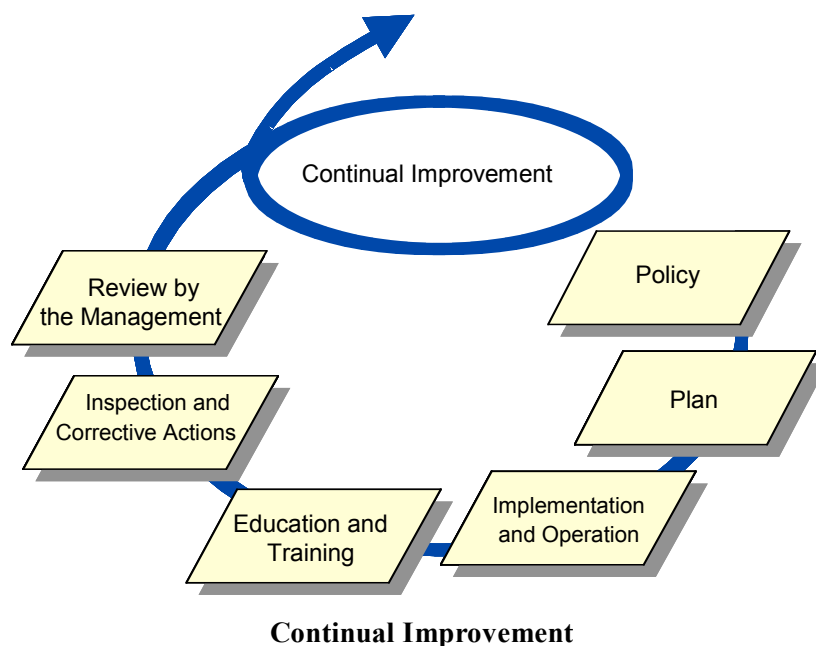
These Guidelines do not seek perfect development and implementation of business continuity plans at the outset. It is expected that each company will gradually build up a disaster-resilient structure through continual efforts.

To develop and establish general plans and measures, continual efforts are effective. One approach is through a management system, which is useful for measures when a disaster occurs.

A management system is a business management technique that is already incorporated in quality control, environmental management, and information security, and has the following three characteristics. (1)it is used by the management, (2)a company determines what is to be implemented, and (3)continual improvements are made.

Continual improvement of the management system means, as shown in the figure below, (1)managers develop policy, (2)develop plans, (3)implement and operate plans as part of routine business, (4)provide education and training for employees, (5)inspect and correct results, and (6)carry out regular management reviews.

The following merits of a management system may be enumerated as stated in these Guidelines; managers are involved, measures can be established through the incorporation of self-evaluation steps in regular activities, an area where companies are rather weak, and human development will be possible focusing on education and training^{10, 11, 12, 13}.



¹⁰ See 2.4 Providing Education and Training, *infra*.

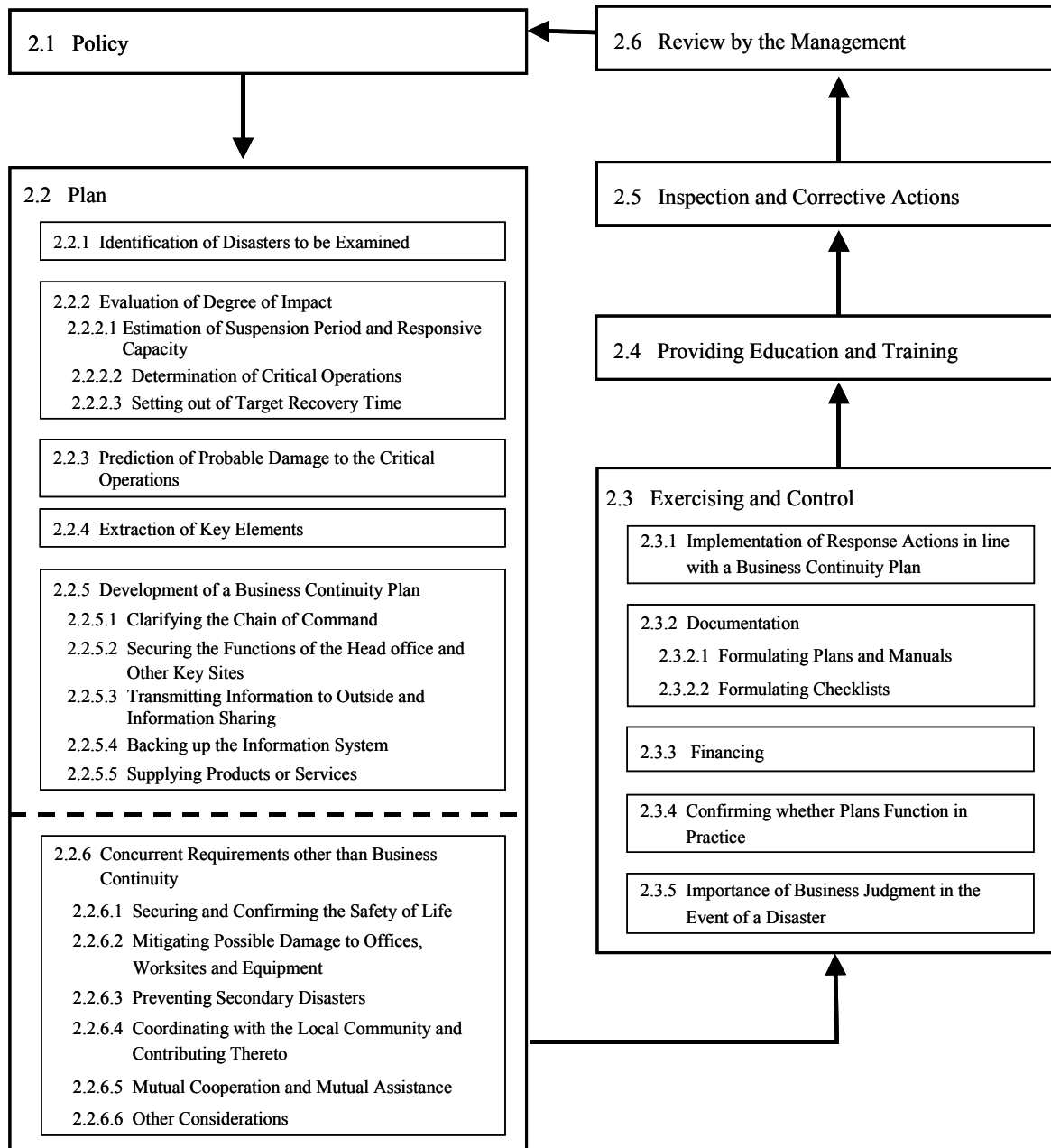
¹¹ Although methods for establishing disaster measures and business continuity can be achieved by structures other than the management system, continual improvement (kaizen) is an area with which Japanese companies are well acquainted and have strengths.

¹² While a management system requires auditing, in these Guidelines, it is considered “desirable for companies that are advanced in their activities to implement.”

¹³ Among management systems, a third-party certification system tends to be recommended, but these Guidelines are not intended to formulate a certification system.

II Contents of Business Continuity Plan and Good Practice

Flow of Business Continuity Good Practice



2.1 Policy

Managers shall prepare a business continuity plan to be implemented when a disaster occurs, make it thoroughly known without exception, and develop a basic policy. Managers shall also explain activities concerning business continuity to related parties inside and outside the company, and obtain their understanding.¹⁴ In such an event, it is necessary for the top management to be involved. If not, the effectiveness of the plan will be questioned and support from domestic and overseas companies, which consider responses to ensure business continuity natural, will not be obtained.

Consequently, this policy should be adopted by a resolution of the board of directors or the management committee. Further, it is desirable to announce the approved policy.

Managers should also secure business resources, including the necessary budget and personnel to conduct activities in line with the basic policy. It is also necessary to secure the schedule for participation in developing the plan of the company.

2.2 Plan

In a company developing an annual plan, it is also necessary to prepare an annual plan on how to ensure business continuity when a disaster occurs.¹⁵ (This plan must be reviewed regularly (see 2.6)). In this regard, the plan should be included in the business plan of the entire company that is approved by the top management.¹⁶

2.2.1 Identification of Disasters to be Examined

As stated in 1.2.1 above, a business continuity plan should essentially be developed with the purpose of continuing critical operations no matter what risk arises. What risks are anticipated by an individual company is left to the judgment of that company. It is necessary to propose a method of introduction that is easy for companies to understand when they are thinking about good practice.

Therefore, in these Guidelines, it is recommended to start in-house activities by identifying earthquakes as anticipated risks. In Japan, as there is a possibility of earthquakes occurring anywhere, an approach is to choose one anticipated earthquake that might affect major facilities, headquarters, or major factories. You can consider several anticipated earthquakes or select another risk (or a few) to start in-house activities. You may start considering all probable risks, but at the basic level it is better to gradually increase the risks considered in the course of continual improvement.

¹⁴ Explanations to related parties should be made in line with 5 Ws (who, what, when, where, why) and 2Hs (how and how much).

¹⁵ For example, the cycle from developing a business continuity plan to inspection and review should be implemented in conformity with the main business cycle of the company (fiscal year, closing term, business report).

¹⁶ It is necessary to impregnate steady efforts in the entire company. If the status of the plan is unclear and efforts are delayed interminably, a hard worked plan might become obsolete as prerequisites change.

2.2.2 Evaluation of Degree of Impact

As a characteristic of business continuity, in the event that a company suspends business regardless of the reason, a target recovery time is set, which the business can endure by evaluating how much the period of suspension will affect the company. On the basis of this evaluation of degree of impact, critical operations whose continuity is required need to be identified, and the priorities for recovery need to be established. The important elements that present obstacles (bottlenecks) to the securing target recovery time are extracted.¹⁷

2.2.2.1 Estimation of Suspension Period and Response Capacity

First, it is presupposed that supplies of major products and services are suspended.¹⁸ Then, an evaluation of the impact of the suspension of supplies on the company's business is made. Specifically, it is evaluated in terms of decreased turnover, lost profit, compensation, decline of credibility (drop off of customers), and deterioration of finances, and a judgment is made on how long the company can endure suspension.

This evaluation of degree of impact is required for assessing critical operations (2.2.2.2) whose continuation is required. If an exhaustive analysis is sought, it will involve considerable time and cost. But, an exhaustive analysis is not essential in terms of the purpose of the evaluation, for example, a simplified quantitative analysis, which uses daily sales and volume of clerical work handled, might achieve the purpose. Further, if it is difficult to quantify damage liability and decline in credibility, an evaluation may be based on the scale of impact on management.

In basic practice, it is acceptable to perform a prima facie analysis by conducting a questionnaire survey of the leaders of each department, as well as an interview survey of the management, and then proceed to the next step. If continual improvement is added, the plan will be more exhaustive.

In this regard, if too much time is spent on evaluating the degree of impact, it should be noted that efforts would be meaningless because details will have changed in the meantime.

2.2.2.2 Determination of Critical Operations

If any damage occurs due to a disaster, as it would generally be difficult to continue all businesses, it is practical to give priority to critical operations. Accordingly, while keeping the identified disasters in mind, it is necessary to carefully select and determine critical operations that have corporate priority as requiring continuity. When determining critical operations, it is appropriate to determine those among operations related to human life, operations generating large profits, operations producing large volumes of goods, and operations that greatly affect customers on the basis of an estimation of the suspension period and capacity to respond.

If possible, it is desirable to perform a quantitative evaluation of the degree of impact of each operation in connection with period of suspension. Points to be organized are names of products that cannot be supplied, supply volume, decrease in net sales, decrease in profit, and impact on

¹⁷ In the procedures for developing a business continuity plan, conforming to the standards in Europe and the United States, an evaluation of degree of impact is called a Business Impact Analysis, and is emphasized.

¹⁸ If an examination starts by identifying disasters, including earthquakes among disasters subject to examination in 2.2.1, it is sufficient to examine suspension of supplies of products and services due to the occurrence of a specified disaster.

customers, employees, society, and citizens.

Basically, it is sufficient to choose and examine one representative operation or a few of them. It is recommended to gradually increase the subject operations through continual improvements.

2.2.2.3 Setting a Target Recovery Time

Based on the results of the evaluation of degree of impact, relations with customers and administration, social mission, etc., a target time that can be permitted for the suspension of critical operations of the company shall be set out. This establishes the prerequisites for developing a business continuity plan.

In actual disasters, it is natural that the period required for critical operations to be recovered will vary considerably due to the scope of the affected area and damage to infrastructure. Therefore, it is sufficient to try to set a target recovery time that seems to be practicable. For example, it may be three hours later, three days later, or ten days later.

To recover the critical operations within the target recovery time, it is necessary to complete procurement and allocation of required various business resources within the said target recovery time.

In this regard, with respect to the target recovery time, it is necessary to set a target time according to the conditions provided for in agreements, laws, and charters, in the case of (1)infrastructure-providing companies that society requires to recover quickly, (2)financial institutions that are requested to target recovery in terms of securing stability of the financial system, and (3)IT service companies that covenant to subscribers the estimated recovery time in service agreements.¹⁹

Specifying the target time for recovery has the effect of promoting disaster-prevention measures because the personnel in charge in the company will make active efforts to achieve the target.

2.2.3 Prediction of Probable Damage to Critical Operations

The next step is to predict the severity of probable damage to critical operations exposed to a specific risk, such as a disaster.²⁰ The business impact assessment step in the preceding paragraph 2.2.2 predicts the impact of a business shutdown that might occur. In this step, probable damage is predicted so that specific measures can be established. In damage prediction, consideration is given to the impacts on a variety of business functions, such as offices/factories, machinery/equipment, workers, raw materials, transportation, packaging, and customers.²¹

As mentioned in paragraph 2.2.1, these Guidelines suggest that in-house activities should be started on the assumption that a specific earthquake could strike an area in question. If the ongoing impact assessment has been started with no specific disasters assumed, prerequisites for damage

¹⁹ To decide this goal, consideration is also given to coordination with local communities as mentioned later.

²⁰ The examination of the possibility of an event or impact of a specific disaster that could cause an interruption of business operations is known as risk analysis. For details of the procedure, refer to JISQ2001 (Guidelines for building risk management systems) or other appropriate material.

²¹ For anti-terrorism measures, it seems reasonable to predict that most major sites (factory, head office, IT center, etc.) could be destroyed completely. Enterprises often make this prediction as a prerequisite for examining their business continuity plans in terms of terrorist attack. However, not all Japanese enterprises would have to examine countermeasures on the assumption that most of their sites suffer a total loss.

predictions are to be established here. Anticipated disasters are sorted from among such risks as earthquakes, floods, fire, SARS, and terrorist attacks considering likelihood, ease of analysis, and so on. In view of the necessity of continual improvement, it is advisable to select some specific disasters for the damage prediction, and avoid analyzing all possible disasters.

Predicting Seismic Damage

Earthquakes are the greatest threat to the business continuity of companies operating in Japan. Predicted damage varies with seismic intensity and other factors. If you have two or more sites of activity in many parts of the country, it seems unrealistic that all sites would be hit by earthquakes having a seismic intensity of 7. If you are operating at a single site, the chances are very small that the site would be jolted with a seismic intensity of 7 than 5 or 6. The lower the seismic intensity of an earthquake is, the less likely you would be to suffer a total loss, thus giving you more leeway in examining business continuity methods to determine an appropriate one that allows you to respond on your own.

Thus, it is suggested that the review be started on the assumption, for example, that critical facilities are hit by an upper 6-level earthquake. Alternatively, you may refer to the results of seismic damage predictions of the national or local government to determine the anticipated intensity of seismic motions that would jolt your head office or main factory. (This technique applies to flood damage as well.)

It is also necessary to gather information on the anticipated shutdown period of vital utility lines (lifelines) that could affect your business. Although giving consideration to utility stoppages makes it difficult to carry out a damage prediction, this may be interpreted as suggesting that you decide the prerequisite conditions you think are appropriate.²²

Being aware that damage differs from one earthquake or disaster to another. Japanese companies operating in this disaster-prone country may be somewhat reluctant to develop response plans based on anticipated damage. Measures to ensure business continuity, however, are often effective against disasters other than the anticipated one. Besides, the business continuity plan, if combined with employee training and periodic review, would sizably enhance the ability of individual employees as well as the company as a whole to prevent disasters. This might explain why they emphasize business continuity plans in Europe and North America.

²² When predicting damage caused by an earthquake or other wide-area disaster, companies often look toward estimated periods of lifeline disruption, assuming no damage to their own facilities. First, they must recognize that their facilities would not remain intact either.

How to Advance Preparations for Anticipated Earthquakes

Assuming that an earthquake is (one of the major) anticipated risks, you can determine the anticipated seismic intensity of a specific earthquake, and then predict the probable seismic damage to your business. If a detailed damage prediction is impossible, it is suggested that at least one damage-causing factor that could affect your production should be examined; for example, such a factor might cause (1) complete collapse of less quake-resistant buildings (as a result, employees cannot enter them) or (2) breakdown of core production equipment leading to a delay in recovery which could take as long as one month.²³

An earthquake damage scenario is drawn up to determine (1) which buildings would be damaged and to what extent, (2) which facilities, fixtures, and fittings would be damaged and to what extent, (3) How long it would take to repair and readjust equipment and devices, (4) how many employees can come to the office or assembly place, (5) what portion of inventories remains intact, and (6) how long lifelines remain disrupted.

At first, you do not have to be meticulous in drafting a seismic scenario. What is important is to get started. You can refine its validity and precision on an ongoing basis.^{24 25}

Generally, a worst-case scenario is used in risk management and business continuity analysis. (Formerly, the most likely scenario, determined from event probability and extent of damage, had been used.) In a baseline analysis, however, you have only to examine a scenario that is just one or more steps worse than the most likely scenario.

Some companies may eventually find it impossible to take response measures to meet the scenario they work out. In this case, you should not stop there, but acknowledge that condition and continue with a more manageable scenario that anticipates less damage. More specifically, a realistic approach might be to anticipate a slightly smaller earthquake you can manage on your own; for example, anticipate an earthquake with a seismic intensity of lower 6 or upper 5 instead of upper 6. What enhances the earthquake disaster prevention capacity of a local community is that more and more enterprises look to anti-earthquake measures.

2.2.4 Extraction of Key Elements

On the basis of predicted damage caused to critical operations, major production equipment, information, or other resources, whose recovery is a decisive factor for the resumption of production or business operations, key elements (critical path with the longest recovery time,

²³ To refine damage prediction as part of continual improvement activities, it is advisable to make changes to the conditions of the event, such as the day of the week, time of day, affected site, anticipated earthquake, targeted core product, guiding principle or foundation for corporate activities. It is also advisable to allow for anticipated damage to other companies of a like nature.

²⁴ In the text, earthquake damage to premises is estimated for a specified level of seismic intensity. If a survey of buildings, etc. is a burden to the enterprise, simplified procedures with no survey data may be employed, for example, just to determine whether the building in question is still usable if it is affected.

²⁵ In a standard risk management technique, risks are sorted, specified, calculated (event frequency estimation, vulnerability analysis, and damage extent and impact estimation), evaluated (acceptability determination), and prioritized. All of these steps, however, are omitted here. As the enterprise gets used to business continuity response activities, it should introduce standard risk management procedures (JISQ2001 "Guidelines for building risk management systems") as part of continual improvement activities, and thereby come up with more rational countermeasures.

bottlenecks that place limitation on production output,²⁶ etc.) are selected. Because the number of days actually required for business recovery depends on the number of days required for the recovery of these critical resources, measures are examined to minimize the number of days required for their recovery.

It should be kept in mind here that enforcing such measures turns the key elements into other resources. For this reason, two or more key elements are picked up as targets of measures and are continually reviewed.

In practice, examinations are often repeated back and forth between steps for impact assessment (paragraph 2.2.2) and key element extraction.

2.2.5 Development of a Business Continuity Plan

To ensure the continuity of business, the management develops a business continuity plan that will reliably restore critical operations by the target recovery time. In this case, the management might be able to find various responses by capitalizing on the company's ambient environment, scale and business characteristics.

In the process of developing specific countermeasures, the management shall judge from the following standpoints: i.e., how to protect key elements; and, what measures are to be taken in case key elements suffer damage.

The following items are especially important to ensure the continuity of business in the event of a disaster:

- (1) Clarifying the chain of command
- (2) Securing the functions of the head office and other key sites
- (3) Transmitting information outside and information sharing
- (4) Backing up the information system
- (5) Supplying products or services

If the supply of a product or a service (Item (5)) has been suspended temporarily, this stoppage may be allowable, provided items (1) to (4) have already been established, and the suspension time is within the allowable period specific to the product or service involved.

The key items (1) to (5) that are associated with business continuity are explained by item below.

2.2.5.1 Clarifying the Chain of Command

Building a system of organizations for business continuity and clarifying their roles and command chains are essential for promoting business continuity activities, and ensuring a successful response in the event of a disaster. Persons responsible for these organizations should be appointed from the management. A cross-organizational anti-disaster function may be created in each department throughout the company, because business continuity measures are not under the sole control of particular departments, such as corporate planning and general administration, but involve a variety of extraordinary operations. Some managerial resources are needed to implement extraordinary activities, so these resources are also to be clarified and procured securely. In small

²⁶ For example, bottlenecks range from business components, such as tasks, processes, departments, distribution of goods, key people, data and systems, to product production elements, such as machinery, dies, tools, and raw materials.

and medium-sized businesses, the CEOs themselves often take the initiative in business continuity activities. In any case, measures are taken with clearly defined responsibilities.

When examining a business continuity plan, there are some points to be fully considered in association with the item “clarifying the chain of command,” which include:

- To ensure efficient organization control in the event of a disaster, chief of the disaster countermeasures headquarters, secretariat, departmental measures implementation offices, etc. should be organized into a system.
- Because a disaster triggers extraordinary activities that are very different from routine operations, an inter-department mobilization system should be established.²⁷
- Authority transfer or empowerment rules should be established in advance in case the chief of the disaster countermeasures headquarters is out of contact or absent.
- In each department, authority transfer or empowerment rules should also be formulated in case the chief of the measures implementation office is out of contact or absent.

2.2.5.2 Securing the Functions of the Head office and Other Key Sites

In the event of a disaster, there should be a place where the chief of the disaster countermeasures headquarters, officers, etc. can assemble to decide countermeasures and take command. If the head office or branch sites are affected, plans should be formulated in advance to define where to assemble in what case, and which operations to carry on.²⁸

When examining the business continuity plan, there are some points to be fully considered in association with the item “securing the functions of the head office and other key sites,” which include:

- In addition to the possibility of resuming business in the affected area, business continuity in unaffected areas should be examined (e.g., to check transfer of operational control to a site or factory outside the affected area). Although transfer of the command function outside the affected area is not an essential requirement, it is necessary to carefully consider whether the stakeholders would give consent to this matter without conducting an examination.
- Active use of document and electronic data storage service in a remote area
- Time-zone differences should be considered. (Information might have to be transmitted to overseas sites that might be working when Japan is on holiday or at night.)
- Active use of community resources, such as municipal disaster programs and neighborhood disaster-prevention activities

2.2.5.3 Transmitting Information Outside and Information Sharing

After a disaster, it is important to share information with business partners, consumers, employees, stockholders, citizens, and local municipalities.²⁹ In this context, measures should be

²⁷ When setting up an emergency organization, one method uses the regular organization as it is, and another reorganizes it by function, such as information gathering, analysis/evaluation, logistics, exercising/response, and information transmission. It is advisable to adapt to circumstances; for example, an on-site countermeasures headquarters should be set up according to the extent of damage, or task teams, such as customer response, recovery and affected employee support, should be flexibly reorganized as the situation demands.

²⁸ The assembly point may be enterprise’s sales office, office of an outside company in the same trade or in business with the enterprise, chamber of commerce office, company-owned house or dormitory, etc.

²⁹ Information sharing among interested persons on a routine basis is generally known as “risk communication.” On the other hand, post-disaster information sharing is sometimes called “crisis communication.”

taken to prevent a so-called “blackout” situation, where corporate activities are invisible to interested persons, and people do not have the least idea what is going on.³⁰ This also emphasizes the importance of prior consultation with interested parties.

Providing information to business partners and customers in the supply chain is an essential requirement for middle-standing small or medium-sized enterprises as well.

When examining a business continuity plan, there are some points to be fully considered in association with the item “transmitting information outside and information sharing,” which include:

- Establishing systems for information collection, distribution, and public relations
- Developing systematic communications with the authorities concerned, residents in the neighborhood, supply chains, etc.
- Securing means of communication and information

2.2.5.4 Backing up the Information System

Information systems are among the key infrastructure functions of a business. It is essential that necessary information and data be backed up and stored at two or more places that are unlikely to be affected by a disaster at the same time. In particular, a well-maintained backup system is needed for information systems that support critical operations.³¹ If a disaster should occur, the business continuity plan would be put into practice with priority given to the critical operations. However, if the company has moved out of the emergency response phase and finally changed over from alternate facilities and means to regular ones toward the full restoration of its business, problems could arise due to loss or mismatch of data required for regular operations. A detailed comeback plan should, therefore, be developed in advance to prevent such problems.³²

When examining business continuity plans, there are some points to be fully considered in association with the item “backing up information systems,” which include:

- Clarifying the relationship between the critical operations to be protected and the information system
- Developing backup operation, changeover, and comeback plans
- Implementing redundancy measures for private electricity generation equipment, power supply, power lines, etc.
- Active use of document and electronic data storage service in a remote area

2.2.5.5 Supplying Products or Services

These days, manufacturers rarely engage in all processes from parts through finished products

³⁰ In particular, enterprises engaged in international trade should respond appropriately, because news about earthquake damage might trigger suspended business relations, postponed contract conclusion, or sharp fluctuation in FOREX or stock prices.

³¹ For details of backup systems, refer to the “Guidebook for developing contingency plans in financial institutions, etc.” a publication of the Financial Information System Center (FISC), or METI’s Guidelines for developing business continuity plans” (a workshop report on ideal corporate information security governance, reference material) or other appropriate materials.

³² For example, the following considerations may be effective: (1)the backup ordering system, when put into operation, should be made compatible with the settlement system, and (2)If office work has been done manually, entries in the recovered information system should not be resumed until an inspection is made to ensure that correct entries for the manually processed portion has been completed.

themselves. If a disaster damages any link in the supply chain, or a company involved in supplying a raw material or parts, transportation, production or sale, the product in question is less likely to reach the market. This means that business continuity plans are not self-contained. It is, therefore, important that information about the business continuity of related companies be gathered on a routine basis. It is also advisable that a company obtains prior understanding of the conditions of its business continuity plan from business partners.

The supply of a product or service may be interpreted as continuing when, for example, it is being produced in any way, whether it may be due to early factory recovery, alternate self-production, OEM or other mode of production on an outside basis. Continuing product supply may also be achieved using the enterprise's own stocks. Once damaged, factories take time to restore operations, but business continuity may be maintained in some way or other.

When examining business continuity plans, there are some points to be fully considered in association with the item "supplying products or services," which include:

- In addition to the earliest possible recovery of the affected factory, alternate production at a factory outside the affected area should be considered.
- It is important to know what damage suppliers of parts or materials could suffer in the event of a disaster. It is also advisable to secure substitutes or otherwise work together with them to develop a business continuity plan.³³
- Cooperative relations should be established in advance with purchasers and suppliers in the supply chain. (In particular, this applies if sites are not dispersed.)
- OEM arrangements and mutual aid agreements with other companies of a like nature should be used. (In particular, this applies if sites are not dispersed.)
- Review of proper stock concept (In particular, this applies to cases where the part or material in question is a special one available only from a specific supplier.)

2.2.6 Concurrent Requirements Other than Business Continuity

A disaster response entails many different activities.³⁴ Aside from business continuity, response efforts should be made to secure the safety of life, prevent secondary disasters, contribute to the local community, and coexist with the community.

2.2.6.1 Securing and Confirming the Safety of Life

The largest possible number of eligible rescue and life-saving persons should be secured to save the lives of customers, executives, employees, cooperative companies' employees, and temporary staff. Earthquake retrofits to worksites are very helpful for securing the safety of life (paragraph 2.2.6.2). These requirements are especially applicable to industries where many callers come to a shop at a time.^{35 36}

Should a disaster strike, the safety of officers and employees should be confirmed immediately.

³³ In risk management, countermeasures are classified into such categories as avoidance, reduction, transfer, and possession. This classification is not necessarily imperative, and therefore is omitted here.

³⁴ When taking anti-earthquake measures, for example, they may include damage suppression measures that minimize probable damage from seismic motion, direct damage mitigation measures that prevent possible fire or chemical leaks in the event of a disaster, and indirect damage mitigation measures that deal with profit loss, compensation for damage, etc.

³⁵ Consideration should also be given to the need for mental care after a disaster.

³⁶ Attention should be paid to tsunami as well as preparedness for earthquakes and fire. The need for training is discussed in the section "education and training."

Appropriate safety confirmation procedures should be specified and rehearsed at regular intervals. This helps in the case of an emergency.³⁷

2.2.6.2 Mitigating Possible Damage to Offices, Worksites, and Equipment

Although examination of alternate places is important for the continuity of the critical operations, it would be more desirable to find head office, factory, or other worksite and equipment intact after a disaster. Undamaged office, worksite, or equipment ensures the safety of life, eventually leading to a quicker recovery.

Among other things, good seismic resistance is essential for buildings in Japan. Efforts to make production machines, ancillary equipment, office fixtures, and fittings fall-resistant are also important.

Preparedness for storms and floods is also justifiable because they are highly likely to cause damage.³⁸

Reinforcing Your Preparedness for Earthquake Disasters

In Japan, earthquake protection is a basic requirement for offices and other worksites to ensure the safety of life, suppress the occurrence of fire and other secondary disasters, and ensure business continuity and prompt recovery of activities. If your worksite or office building is built to former anti-earthquake standards, the Government strongly suggests that you create a feasible mid-term action plan, and check its earthquake resistance and reinforce it accordingly. In this process, you may determine the priority of anti-seismic reinforcements in view of cost-effectiveness, as well as the results of impact and risk assessments as described in these guidelines.

Recovery will be delayed if production equipment or ancillary facilities such as air-conditioning systems are damaged, although the building itself remains intact. Utmost efforts should be made to make equipment and fixtures/fittings, such as lockers, fall-resistant.³⁹

An early response to the need for anti-seismic reinforcement or equipment retrofitting may be difficult because it requires sizable investment. Despite this difficulty, however, you should neither give up developing a business continuity plan nor delay your response. It should be noted that developing a business continuity plan is one thing, and investing money is another.

Aside from earthquakes, Japan is prone to such disasters as typhoons with heavy rainfall, rainstorms (river flooding, etc.), storm surges, and tsunami. If you can get information on anticipated disaster damage (hazard maps, etc.) from municipalities, it is advisable to refer to it when you work out measures for an anticipated disaster. If your office or worksite is located in an area at risk of flood damage, it may be necessary to protect your production equipment, ancillary facilities, fixtures, and fittings from possible water damage. To do this, you might have to move key equipment to an elevated place or an upper floor.

³⁷ Concrete examples of employee safety confirmation techniques include the creation of a contact network, introduction of an employee safety confirmation system, and a rally point system by which employees are asked to assemble at a predetermined place at a predetermined number of days after a disaster.

³⁸ In today's information society, loss of data or IT infrastructure can have a great impact on an enterprise. Disaster countermeasures are important for computer servers, disks, and other key equipment as well.

³⁹ Measures to make terminal units fall-resistant should also have an anti-theft capability.

2.2.6.3 Preventing Secondary Disasters

Safety measures to prevent fire, check the spread of fire, and prevent blowout or leaks of liquid chemicals should be implemented to avoid causing problems to the local community. After a disaster, inspections should be started immediately in a systematical manner to see if any of the above-mentioned problems are present, and if any affected building or structure could fall outside the premises. If the surrounding area is likely to be at risk, the following actions should be taken immediately: alert the danger to all residents in the neighborhood or request them to evacuate; report to the administrative authorities; and take response action with them. All of these actions should be defined in the plan.

Required safety-measures workforce should be secured in advance, and trained to ensure prompt assembly.

2.2.6.4 Coordinating with the Local Community and Contributing Thereto

Disasters often strike municipalities, local residents, and enterprises at the same time, as evidenced by natural disasters in the past. Therefore, coordination with local residents and municipalities in the vicinity is essential for smooth recovery following a disaster.

If companies are looking only at business continuity, they would give top priority to securing external resources required for their recovery, and develop a business continuity plan. If each company acts in its own best interests, this behavior could invite heavy traffic congestion everywhere, panic buying of goods, and other problems that would impede the recovery of the local community. Such a consequence must be avoided by all means. In undertaking the task of developing these guidelines, the Government intends to ask each enterprise to understand and cooperate in this matter.

Should companies suffer damage to their facilities or equipment, the recovery process would involve materials and machines carry-in operations, construction noise and vibration, and other public nuisances that need to gain an understanding of the neighborhood. In this sense as well, mutual understanding is important between the company and the community where they are operating.

For example, companies except vital utilities service providers should not ask employees other than those in charge of emergency tasks to report to work but stay at home during the critical post-disaster period in which endangered lives could be saved with a high probability (e.g., for three days or so after an earthquake). In this way, they would have opportunities to save other lives in the neighborhood, guard against fire, and help the weak, thereby contributing to local safety.⁴⁰ This also gives companies a chance to help ease urban-centered traffic congestion if they are situated at the center of a city.

After disaster damage occurs, companies should cooperate with citizens, the government, business partners, and others because the community's earliest possible restoration is beneficial to them as well. If companies are willing to contribute in their own way to the early restoration of an

⁴⁰ Especially in metropolitan areas, instructing many employees to report to work with utility and related services not yet restored could cause a water/food shortage or confusion of response to sewage or garbage issues. If a company asks many of its employees to report to work, it should address sewage and garbage problems itself to avoid troubling the local community.

affected community or help with disaster-relief services, it may be socially desirable, provided they confer with appropriate local public entities, and make prior arrangements on what to do in the case of an emergency.⁴¹ Companies should also stay in contact with these entities on a routine basis.⁴²

Companies can contribute to the local community in many ways; for example, (1) donating relief funds, (2) opening parts of premises or buildings to evacuees,⁴³ and (3) contributing survival food and relief goods from stockpiles (this is a common practice), (4) dispatching needed engineers and technicians, and (5) encouraging employees to participate in volunteer activities. These are among the variegated activities companies can do to support disaster-relief operations for the affected local community. Contributory responses in whatever way possible would also help enhance the value of the company itself.

Besides, the spread of a volunteer leave system among enterprises is expected to be instrumental in promoting volunteer activities of employees on an individual basis.

2.2.6.5 Mutual Cooperation and Mutual Assistance

Self-help recovery is limited if disaster damage ranges over a wide area. In view of business continuity, emergency mutual assistance mechanisms should be established in the same industrial complex, in the neighborhood association, with purchasers in the supply chain and with other enterprises in the same industry.⁴⁴

2.2.6.6 Other Considerations

If a disaster should strike during working hours, employees should receive water, food, portable urinals, and other emergency supplies needed prior to going home. Stockpiles should be secured in sufficient quantities for the core business recovery members to carry out their tasks until the end of the recovery period. Besides, crowbars and other rescue tools should be kept at hand to free employees trapped in collapsed buildings or facilities.⁴⁵

Mitigation of damage to employees' homes is important in itself. What is more, it implies that more core recovery members and other employees are likely to participate in corporate operations. So, this might be one of the company-wide agenda items that enterprises should actively consider.⁴⁶

⁴¹ Cost-reimbursement agreements are sometimes concluded for disaster assistance activities. Disaster assistance agreements cover a variety of activities ranging from water/food offering to road clearing, equipment repairing, transporting goods, and interpreter services.

⁴² Companies should keep in contact with NPOs and local municipalities on a routine basis as part of their efforts to enhance routine activities; for example, they may offer meeting places for residents' associations or NPOs and co-organize seminars for citizens.

⁴³ If companies own hospitals, hotels, terminal buildings, or other facilities that can be turned into first-aid stations or evacuation shelters in the event of a disaster, they should keep a private electricity generator, private source of drinking water, alternative fuel, etc., ready in case vital public utilities, such as electricity, gas and water supply, are disrupted extensively.

⁴⁴ There are many response actions, such as supplying products on an OEM basis, using offices, and dispatching recovery people.

⁴⁵ In the event of a wide-area disaster, emergency public services, such as ambulance, fire brigade, and police are less likely to arrive in a short time. Necessary rescue equipment and materials should be kept at hand, which might be needed to rescue peers on a self-help basis. Necessities include crowbars, saws, shovels, hammers, wire cutters, jacks, portable winches, rope, ladders, and dust-protective masks.

⁴⁶ It is also important for employees to have knowledge about anti-seismic house retrofits, fall-proof measures for furniture, water /food/toilet stockpile, and earthquake insurance. Experience using an emergency messaging service (number 171) is also instrumental for better confirming the safety of employees' family members in the event of a disaster.

2.3 Exercising and Control

2.3.1 Implementation of Response Actions in line with a Business Continuity Plan

After a business continuity plan has been developed, appropriate budgets should be secured so that response actions can be implemented in the form of an annual program as well as mid- or long-term plans in line with the business continuity plan. One of the important points for the response actions to be taken in line with the business continuity plan is that efforts should focus particularly on developing a response plan as described in paragraph 2.2.4 “Extraction of Key Elements.”⁴⁷

Plans are meaningless if they are not put into practice. The point is how existing plans are implemented as initially specified, and how new plans are put into practice.⁴⁸

2.3.2 Documentation⁴⁹

2.3.2.1 Formulating Plans and Manuals

A complete set of plans and implementation procedure manuals should be formulated by department and by role. They should contain the policies for business continuity measures, damage prediction data, business continuity plan, advance preparation, business operations in the event of a disasters, ordinary organization control, organization control, and chain of command in the case of

⁴⁷ Basic requirements for response measures may include:

- Clarifying organizations in charge of response actions and their roles.
- Clarifying business continuity procedures.
- Clarifying resources and their suppliers required for business continuity.
- Determining where to set up a backup office, and making arrangements to secure manuals, PCs, telephone lines, desks, documents, and office equipment.
- Determining what means are employed to back up the information system, select the data to be backed up, and establish procedures for getting back from the backup system or alternate site.
- Backing up critical documents that are vital for the existence of the enterprise, or contain information not available anywhere else. (They are known as “vital records,” as listed at the end of this footnote.)
- Considering the decentralization of production sites.
- Considering stock buildup and decentralization of places where stocks are stored.
- Considering trading with two or more partners.
- Considering OEM agreements with other companies of a like nature.
- Establishing an emergency network of contacts. Secure two or more means of communication.
- Distributing manuals to officers’ homes as well.
- Compiling contact lists of customers, business partners, affiliates, administration offices, and newspaper advertisement agencies.
- Concluding contracts with recovery service providers.
- Establishing procedures for alternative manual operations.

* Vital records are classified as documents either directly or indirectly needed in the event of a disaster; the former including design drawings, layout sketches, and quality control documents, while the latter including documents for maintaining corporate governance or internal control, securing compliance or accountability, specifying rights and obligations, and securing debts and credits.

⁴⁸ If companies are accustomed to management systems, they have only to implement standard items of the management system, such as exercising records acquisition, operation control, and document control, in addition to the items listed in this paragraph.

⁴⁹ The documents mentioned herein include plans and manuals, as well as all other documents, such as requests for decision, minutes, training records and disaster response records.

an emergency, and ongoing improvement procedures.⁵⁰

The plans should contain methodologies for accomplishing critical operations within targeted recover time.

The manuals should be used to have employees confirm or familiarize themselves with response policies and response measures, to hand down expertise to successors following personnel reshuffles, and in daily study sessions.

2.3.2.2 Formulating Checklists

When a disaster strikes, employees will not have time to consult bulky manuals on the spot. Therefore, responsible persons who assume leadership roles should have checklists at hand, which will help them check policy or direction, required minimum actions, progress control, procedures for sustaining critical operations, etc.

2.3.3 Financing

Affected enterprises need funds for recovering damaged or burnt-out offices or worksites, as well as for maintaining financial credit. Financial considerations may involve insurance and reserving bank's disaster loans. It is also wise to consider eligibility for public post-disaster loans from municipalities.

2.3.4 Confirming whether Plans Function in Practice

It is necessary to confirm whether critical operations are actually recovered within the target recovery time. For example, confirmatory inspections should be made to see if required recovery materials and equipment can be procured within the prescribed time. If tasks are supposed to be processed manually in the event of a system shutdown, simulation and other confirmatory steps should be taken to confirm whether the prescribed work load is realistic.

2.3.5 Importance of Business Judgment in the Event of a Disaster

A disaster sometimes exceeds the preparedness of companies, even if they carefully examine response measures against an anticipated level of damage, as described above.⁵¹ Thus, it is important that the management (chief of disaster countermeasures headquarters) and its supporting office do not adhere stubbornly to an existing plan, but use it as a basis for discussion, and make judgments according to the circumstances.⁵²

⁵⁰ Generally, the manuals created have a hierarchical structure consisting of "policy," "regulations," "standards," "procedure," etc.

⁵¹ For example, a series of unexpectedly strong aftershocks followed the main shock in the Niigata-Chubu Earthquake.

⁵² The following are typical time-series steps for what to consider when making decisions in the event of a disaster:

- Check damage without delay.
- Expect the worst if information on damage is unavailable.
- Gain information about damage to the supply chain.
- Mobilize office staff as soon as possible, and create task forces.
- Dispatch an advance team.
- Confirm the extent of impact on business operations.
- Establish basic policies for disaster response.
- Prioritize the countermeasures.

2.4 Providing Education and Training

It is important that both management and employees each recognize the importance of business continuity as a common perception, or as an established culture. This also emphasizes the need to hold education and training sessions on an ongoing basis.⁵³

It is an unrealistic expectation that in the event of a disaster, all interested people can reliably carry out their assigned tasks simply because all of the required tasks are documented. As a result, it is essential for drills and training sessions to be held on a routine basis. These sessions should provide a wide variety of programs ranging from basic knowledge education to desk-top drills and decision-making training for key people, field evacuation exercises, fire drills, backup system operation training, and countermeasures headquarters setup drills.

Because emergency situations do not allow employees time to read and understand emergency response manuals on the spot, people who are familiar with these manuals should be trained as a contingency.

2.5 Inspection and Corrective Actions

Companies should evaluate the conditions of business continuity activities as part of an annual operation audit (or more frequently at regular intervals). Inspections should be conducted to see what has and has not been covered by exercises, and insufficiencies should be improved as detected if treatable during routine operations. The results of evaluations and details of improvements should be reported to the management.

2.6 Review by the Management

On the basis of the results of regular inspections, the management should sort the items to be improved, review business continuity activities as a whole, and define the direction of activities for years to come. To do this, the management should have a correct recognition of the current situation while keeping up with changes in business activities. Managerial reviews repeated at regular intervals are essential for making companies resistant to disaster risks.⁵⁴

-
- Establish specific recovery goals.
 - Give instructions on initial response actions, and control their progress.
 - Create an emergency organization or team, and appoint its leader.
 - Determine whether transfer to the alternate place is justifiable or not.
 - Determine whether the backup system should be put into service or not.
 - Check recovery of materials.
 - Obtain information on the conditions of operations resumed.
 - Check what materials need additional supplies.
 - Judge whether or not affected operations can get back to normalcy.
 - Examine preventative measures.
 - Secure extraordinary budget.
 - Give explanations to the interested persons.
 - Summarize and review the past activities.

⁵³ Personnel reshuffles are common in companies, and many cases of corporate break ups and mergers have appeared in recent years. Under these circumstances, retention of expertise is gaining importance. This is an additional reason why education and training are needed.

⁵⁴ The following applies to paragraphs 2.5 and 2.6: If the quality management system ISO9000, environment management system ISO14001, risk management system JISQ2001 or information security management system

In addition to a periodic review by the management, an overall review of business continuity activities should also be made if a change has been introduced to critical operations, such as major changes in business or restructuring, business expansion, introduction of a new product, and worksite transfer. Business operations are changing rapidly in Japan today.

ISO17799 is already in service, required actions may be taken as part of the activities of existing management system (i.e., “monitoring,” “evaluation,” “remedy or improvement” and “audit”).

III Recommendations to the Management and the Economic Community

Referring to the business continuity framework that has evolved mainly in Europe and North America, these Guidelines have discussed what companies should and should not do in the course of taking business continuity measures. Among other things, the management's unerring judgment is expected in various situations.

At the conclusion of the guidelines, the Government's Central Disaster Management Council Special Board of Inquiry will make the following recommendations for the economic community, as well as corporate management, to consider when taking measures against disasters:

- (1) There is a need to make more companies know that a longer customer list and improved corporate value derive from their reputations among stockholders, business partners, consumers, administrative officials, and employees for their preparedness with business continuity measures against possible disasters. The task that lies ahead is to actively expand this preparedness.
- (2) Should a disaster strike, it may be necessary for the affected enterprise to decide to narrow down the list of key operations and concentrate a limited workforce on them. It should also be noted that this narrowing-down step might be required not only just after a disaster when business continuity countermeasures are to be taken, but also in mid- and long-term perspectives looking at later recovery periods.
- (3) There is a need to make more companies know that examining business continuity measures is conducive to business management because it allows companies to learn what to prioritize among critical operations, processes, and materials, to take effective disaster countermeasures according to the level of risk and importance, and eventually to achieve higher cost-effectiveness and investment efficiency in terms of disaster response.
- (4) Japanese companies' earthquake risks are of deep concern to overseas investors as well. To dispel their anxiety, it is advisable to actively disclose details of earthquake risk along with response measures by some means (e.g., financial statement, sales report, and social environment report). This posture might also reflect credit on the enterprise itself.
- (5) There is a need to make more enterprises know that preparedness for disasters and response to a disaster that has occurred are just part of the management's responsibilities. This notion should also be made ubiquitous among companies in terms of corporate social responsibility. Economically, mitigating disaster damage and ensuring business continuity give a company a chance to reduce its stockholders' economic losses and benefit from restoration-related demand that ensues. Environmentally, measures to prevent secondary disasters, such as environmental pollution, would be highly rated. And socially, early recovery of business operations would help to secure jobs in an affected area along with a favorable reputation in terms of safety of life.

Appendix : Glossary

BCP (Business Continuity Plan)

Defined as a business continuity plan.

ISO (International Organization for Standardization)

International Organization for Standardization is an international organization for standardization, comprised of standardization organizations representing each country and engaged in development and amendment of international standards for all industrial fields (mining and manufacturing, agriculture and pharmaceuticals, etc.), except for electricity, electronic technology and communication fields.

JIS (Japanese Industrial Standards)

Japanese Industrial Standards are national standards established under the Industrial Standardization Law (1949) for the purpose of facilitating industrial standardization in Japan.

NPO (Non-profit Organization)

Non-profit organization collectively refers to non-profit organizations that are voluntarily engaged in social contribution activities. Law to Promote Specified Non-profit Activities (NPO Law) provides a corporate status granting system for organizations to acquire corporate status through simplified procedures.

OEM (Original Equipment Manufacturing)

Original equipment manufacturing is a production consignment system to provide components and finished products under the brand of the purchaser.

Decision-making Training

Defined as training on deciding and giving directions in a short time as how to cope with and how to procure organization, personnel, and funds, assuming an incident or an accident occurred.

Business Suspension Losses

Defined as a decrease in sales and accompanying loss of profits arising from suspension of business.

Desk Training

Desk training is one of the forms of decision-making training. It involves training on important items along a time axis based on a scenario of incident or accident.

Previous Earthquake-proof Standards

Provisions for earthquake-proof in the Building Standard Law, enacted in 1950, were revised twice in 1971 and 1981, based on experiences of earthquake damage following Tokachioki Earthquake (1968) and Miyagikenoki Earthquake (1978). Here they refer to the building standards used before 1981. There are great concerns about the earthquake-resistance of buildings built under previous earthquake-resistance standards.

Crisis Communications

Sharing of information in case of an emergency, including press conferences at the time of an emergency. Crisis communications are included in risk communications.

Critical Path

Where there are several bifurcations in the process of a project, the critical path is the working path that can complete all processes in the shortest time. It is necessary to monitor it selectively as a delay on this path will affect other processes.

Contingency Plan

Defined as a previously prepared plan for procedures to respond to emergencies.

Disaster Loan

Many municipalities have systems of loans for disaster damage and lend money to the victims of earthquakes, major fires, and wind and water damage. Subjects and terms of loans are published on the home pages of municipalities. Regarding loans to small and medium-sized enterprises, governmental financial corporations establish systems for loans to aid recovery from disasters.

Supply Chain

Defined as a series of business linkages that connect suppliers to consumers, including development, procurement, manufacture, distribution, and sales. Supply chain involves suppliers, manufacturers, distributors (wholesalers), retailers, and consumers. Management method that attempts to have integrated management of and more efficient placement and receipt of orders between clients, procurement of materials and component parts, inventory, production and delivery of products and improve corporate income is called "Supply Chain Management."

Service Level Agreement

In executing an agreement, a written agreement that provides for the level of service quality required that is based on the scope and contents of services to be provided and presupposed matters, as well as provides for operating rules to realize details of the agreement.

Assistance Agreement

Prior agreement executed between municipalities and enterprises on business arising after disasters. It provides for supply of foods, provision of evacuation sites, and support to open up roads.

Business Continuity Plan

Business strategy that would not interrupt specified critical operations at the time of a disaster and if business activities are interrupted, enables a company to resume critical functions within the target recovery time, and protects the company from an outflow of customers to competitors, and declines in market share and valuation of business in connection with an interruption of business. Such measures as improving back-up systems, securing back-up office, speedy confirmation of safety, securing personnel and alternative production facilities are carried out. (Business Continuity Plan: BCP) plans here do not merely mean plans, but include holistic management. If management is emphasized, the term BCM (Business Continuity Management) may be used.

Initial Response System

Defined as the system immediately after occurrence of accident or disaster. It is an organization that designates the chief of the headquarters and can make decisions. It has the authority to give commands and orders to the sites and has an information-gathering function.

Information Security Governance

In terms of information security, formulation and operation in the company of corporate governance (mechanism of corporate decision-making), paying attention to social responsibilities, and an internal system mechanism (internal system and process to be formulated and operated for the company to perform business properly and efficiently).

Earthquake-proof Repair Promotion Law**(Law concerning Promotion of Earthquake-proof Repair of Buildings)**

Law enacted as of December 25, 1995, which has the purpose of improving the safety of buildings against earthquakes and thus contributing to securing public welfare through taking measures for promoting earthquake-resistant repair of buildings to protect life, body and property of people from buildings collapsing due to earthquakes.

Third Party Certification System

A system, in which regarding whether a certain organization or a person has been engaged in activities conforming to the requirements of the standards, an organization (third party) that has no direct transactions with the organization or person makes an examination and provides certification. Certification by each organization such as an enterprise or municipality or a person shall be referred to as first party certification, certification by the other party of the organization or person, including the client, shall be referred to as second party certification.

Opening-up of Roads

Defined as removal of obstacles to traffic on the roads to secure traffic route.

Hazard Map

A hazard map is a map that shows forecasted damage. Municipalities engage in disclosing and publishing hazard information depending on the situations of localities and cities. Items include volcanic eruptions, areas with a danger of landslides, and flood or evacuation sites, evacuation routes at the time of an earthquake.

Back-up Office

An office secured in advance in preparation for the cases where main office becomes unable to be used due to natural disasters or terrorism. It accommodates personnel required for business continuity and is equipped with facilities and functions required for operations.

BIA: Business Impact Analysis

Process that confirms the impact on operations and financing by the business interruption. It identifies critical business, operations and processes and relevant business resources and performs analysis of the impact on business continuity.

For example, it follows those procedures set forth below: (1) sorting out of critical businesses, (2) analysis of business processes, identification of critical elements (bottleneck) in business continuity, (4) determination of priority in recovery, (5) setting out of target recovery time.

Blackout

It means the conditions in which interactive exchange of information is impossible between the organizations and related parties.

Bottleneck

The original definition is the narrow part of a bottle by the lip. Here it means, in business continuity and operation recovery, the key elements without which the entire process is prevented from progressing.

Management System

Defined as a standardized method of management. Managers participate and repeat a cycle of policy development, planning, doing, checking, and reviewing.

Rally Point System

Defined as a system by which people rally at a designated place and time. For example, have the employees know in advance without exception that they should rally at xx forty-eight (48) hours after the occurrence of a disaster, and tell them future responses etc. of the company at the rallying site.

Risk Communications

Defined as activities and processes for promoting mutual understanding of risks through a sharing of risk information between senders and receivers of risk information. Information sharing includes both that between organizations and within the organization (see, Crisis Communications).

Quantification of Risks

Defined as numerically making an objective assessment of the frequency and the degree of impact of risks by some method.

Risk Management

Defined as anticipating risks and contriving to minimize the impacts of risks if a risk is realized. It means management, expertise, system, and countermeasures for overcoming risks.

Risk Analysis

Defined as identifying causes using available information systematically and analyzing the event probability and degree of impact of identified events.