



Asia-Pacific
Economic Cooperation

Guidebook on SME Business Continuity Planning



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Guidebook on SME Business Continuity Planning

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0. How to Use This Guidebook

This Guidebook is intended to help small and medium-sized enterprises (SME) introduce business continuity plan (BCP). It presents 10 easy steps that SME readers can follow to develop their own BCP. In each step, forms have been prepared to assist readers. You should fill in those forms to suit the needs of your company. When you finish all the forms, you will have a complete business continuity plan for your company.

There is one important point you should remember: introducing BCP is not a simple matter of drafting a business continuity plan on paper. Adopting BCP is a decision making by a business owner to protect their company from various disasters and accidents and to enhance their company's ability to survive by carrying out planned continuity strategies. Let's proceed with this in mind.

1. Introduction

Every business owner wants to expand their business, protect their employees, and contribute to society by supplying their products or services. You, as a business owner, have to protect your business not only on a fine day but also on a rainy day and even on a stormy day. You have to successfully compete in a tough market under ordinary circumstances, but also need resilience if you are to successfully survive a crisis such as a natural disaster or a fire. You do not want to see your business destroyed by a disaster, accident, terrorist attack, or other incident. Is your company prepared for disasters?

"Failing to prepare is preparing to fail" said Benjamin Franklin. If you have not prepared for such incidents, you are (unconsciously) preparing for failure when a disaster or accident strikes. Business continuity plan (BCP) is the solution for protecting your business during a crisis.

2. Warm Up

Consider the simple example of a traffic accident. Even if you always try to drive safely, there is no 100% guarantee that you will be able to avoid a traffic accident. What is the disaster (or worst-case) scenario for a traffic accident? One in which you, the driver, are killed or sustain a severe injury that causes permanent disability and keeps you from returning to life as you knew it before.

What is the disaster scenario for your company in a disaster? Your company would be fatally wounded if critical resources sustain devastating damage that would force you to give up on recovery (death scenario). Or your company might sustain severe damage that would cause an extensive disruption in your business. As a result, you might lose important customers and be forced to scale down your operations (permanent disability scenario). These are the worst-case scenarios that your company should avoid at all costs.

But if you are lucky and only sustain minor injuries in a traffic accident, you will be able to recover in a short period of time and return to normal life. Likewise, the better scenario for your company is to keep damage contained to a low

level such that it would be able to resume operations at a normal or higher level of functionality in a short period of time. This is your survival scenario. BCP is all about your company's ability to achieve its survival scenario.

Here are some warm-up questions to get you started!

Q1: What is your company's disaster scenario that might lead to bankruptcy?

Q2: How soon does your company have to recover to survive from a disaster-related disruption?

Q3: What are the critical resources whose availability determines the life or death of your company?

Q4: Within 5 to 10 years, what kinds of disasters and accidents are most likely to impact you, potentially triggering a worst-case scenario?

Were you able to answer the above questions easily? If not, don't worry, this Guidebook is here to help you. But if you were, you already have a mindset prepared for BCP. This Guidebook will guide you through 10 easy steps to build your company's Business Continuity Plan (BCP) program. These 10 steps are based on the International Standard ISO22301, for Business Continuity Plan.

10 Steps for BCP

Step 1	Determine BCP Purpose, Scope, and Team
Step 2	Prioritized Activities (PA) and Recovery Time Objective (RTO)
Step 3	What Do You Need to Resume Key Activities?
Step 4	Risk Assessment – Know Your Disaster Scenarios
Step 5	Do Not Forget Pre-Disaster Protection and Mitigation
Step 6	Emergency Response to Disaster
Step 7	BC Strategies to Early Resumption
Step 8	Be Financially Prepared
Step 9	Exercise Makes Your Plan Functional
Step 10	Ongoing Review and Improvement

3. BCP Framework

When you start BCP planning, you need to create a solid foundation (or framework) for your company's BCP program by addressing these three elements:

- 1) Purpose: Why is your company introducing BCP?
- 2) Scope: Which parts of your company will introduce BCP?
- 3) Leader: Who will serve as leader of your BCP activities?

It is very important that not only top management show visible strong leadership, but also that all employees are fully aware of the BCP framework (purpose, scope, and leader).

Step 1 Determine BCP Purpose, Scope, and Team

(1) Purpose

You should make the purpose clear as to why your company is going to introduce BCP. BCP is to protect your business operation from disasters and accidents. Your clear purpose will be a very important criterion in determining priorities of your key products or services and selections of your business continuity strategies. What is your BCP purpose? The first priority is to protect people, your employees and visitors to your premises. The second is to protect your business, fulfilling your contractual obligations to your customers and users, meeting social responsibility and contributing to the local society and economy. It will secure employment and protect employees' livelihoods.

(2) Scope

The question is which section(s) of your company would you want to introduce BCP? You can limit the scope to key sections (or departments) which introduce BCP. For example, you can select the main factory which manufactures the company's top brand product or NO.1 shop which sells most. You can decide the scope of the BCP based on your business needs and own circumstances. You have to include the core sections which are very critical to your company's survival.

(3) BCP Leader

You need to appoint a BCP leader who takes the initiative in company-wide BCP activities. BCP leaders should be given authority and responsibility, which are necessary to carry out his or her role. BCP is the company-wide activities that require active participation and cooperation from the relevant sections. It is desirable to nominate a person who is widely trusted in the company. If the company size requires it, a support team should be selected to work under the direction of the BCP leader. Management need to ensure the necessary resources, including a budget which is available for the BCP leader and team to carry out their duties. The SME owner (senior management) should demonstrate a visible commitment to BCP activities and should know that only verbal instructions are not enough to achieve successful results.

Fill in **Form 1** regarding your company's BCP framework.

Form 1 BCP Framework

BCP Purpose	
Protect People	
Protect Business Activities	
Recover with Local Community	

BCP Scope	
Departments to introduce BCP	

BCP Leader and Team	
BCP Leader	
BCP Team Members	

4. Your Lifeline Businesses and the Threatening Risks

The purpose of BCP is to protect your company and business operations even when a disaster or accident occurs and disrupts operations. First, you will focus only on your company's operations. Of your various business activities, which are your company's lifeline (or critical) businesses? Which business activities should be given top priority for recovery if disrupted by a disaster? What resources are necessary to keep those lifeline businesses operating? Without those resources, the company's top priority activities will not be able to be resumed. Second, consider the risks to your company. What kinds of risks, such as natural disasters or accidents, are most likely to seriously damage the company's assets, businesses, and supporting resources? In this chapter, you will gain a renewed understanding of your company's operations by looking at these two elements: lifeline (critical) business activities and the risks that threaten them.

Step 2 Prioritized Activities (PA) and Recovery Time Objective (RTO)

In Step 2, you will consider what is your company's lifeline product or service? Which product or service should be recovered (be delivered) as the first priority when a natural disaster (or an accident) disrupts the company's operations? Which business activity makes a top selling product? Which shop sells most in your company? Those critically important business activities are called Prioritized Activities (PAs). You have to identify the **Prioritized Activities** of your company. As the second step, you should know the impact (timeline) of total disruption to the main activities listed. How soon would the total disruption of these activities become unacceptable to your company? (This period is called Maximum Tolerable Period of Disruption / MTPD). What must be done to get your business operational again in the shortest possible timeframe, before heading towards exiting the business or filing for bankruptcy? The importance of this simple analysis is to focus only on the impacts of disruption, setting aside risk factors. By disregarding risk factors, such as occurrence probability and severity of damage, during the process of analyzing your business and identifying Prioritized Activities, you will gain a clearer understanding of how soon your company has to resume operations to avoid bankruptcy.

Start by assessing the impacts of your company's main business activities when those are disrupted by a natural disaster or accident. Enter your company's business activities (product/service lines) in the left column of **Form 2-1**. You will compare the importance of the activities listed. The level of importance of each business activity (product/service line) should be rated using two criteria: external and internal impacts. First rate the external impacts, those which might affect customers, users, and society at large. How seriously might your customers, users, the environment, or society at large be impacted if your product or service were to stop being delivered? How long will your customers willingly wait for you to resume operations? How soon might your key customers switch to another provider? If you deliver certain types of products, such as medical supplies, the disruption of such deliveries could threaten the lives of end users. Rate the degree of the external impact as large (L), medium (M) or small (S), using your subjective judgment to determine the relative differences between those three levels.

Internal impacts should be reviewed based on various criteria such as financial status (e.g. cash flow), operational problems, and the reputation of the company. When the production line of product A is shut down, how serious of an impact will it have, over time, on the company's revenue? If your top brand service is suspended, what level of impact might it have on the company's cash flow? Rate the degree of the internal impact as large (L), medium (M) or small (S).

Next, you should know the timeline of the impact of a total disruption. How soon would a total disruption in those activities become unacceptable to your company? This period is called the **Maximum Tolerable Period of Disruption, or**

MTPD. This is the very latest time at which your company would have to resume the listed activities before reaching a worst-case scenario that would end in bankruptcy.

Enter the listed activities in **Form 2-2** (left column). Consider the MTPD for each activity listed and select one of the five columns showing periods of time (3 days, 1 week, 2 weeks, 1 month, 2 months or more). Determine the period by which each listed activity has to be resumed. For example, if the first activity's MTPD is one month, place a checkmark (✓) in the "1 month" column. If you have to restore delivery to a key customer within 2 weeks, write "2 weeks" in the rightmost column entitled Recovery Time Objective (RTO). Repeat this process for all listed activities.

Now that you have analyzed and evaluated the internal and external impacts and identified the Recovery Time Objective of the main activities of your company, you will select and identify your company's Prioritized Activities and set Recovery Time Objective (RTO) from a company-wide perspective in **Form 2-3**. Your company may select one or more PA(s) depending on your business operations.

Form 2-1 Impact Level Comparison Chart

Departments Handling Each Product/Service	Impact Levels	
	External Impact	Internal Impact
Product / Service A	L : M : S	L : M : S
Product / Service B	L : M : S	L : M : S
Product / Service C	L : M : S	L : M : S
Product / Service D	L : M : S	L : M : S
Product / Service E	L : M : S	L : M : S

Form 2-2 Maximum Tolerable Period of Disruption

Departments Handling Each Product/Service	Time When Impact Becomes Unacceptable MTPD					Recovery Time Objective (RTO)
	~3 ds	~1 wk	~2 wks	~1 mo	~2 mos.	
Product / Service A	~3 ds	~1 wk	~2 wks	~1 mo	~2 mos.	
Product / Service B	~3 ds	~1 wk	~2 wks	~1 mo	~2 mos.	
Product / Service C	~3 ds	~1 wk	~2 wks	~1 mo	~2 mos.	
	~3 ds	~1 wk	~2 wks	~1 mo	~2 mos.	
	~3 ds	~1 wk	~2 wks	~1 mo	~2 mos.	

Form 2-3 Prioritized Activities and RTOs

Prioritized Activity(ies)	
Recovery Time Objective(s)(RTO)	

Step 3 What Do You Need to Resume Key Activities?

Prioritized Activities (PAs) are supported by various internal and external resources. When disrupted, PAs are going to be resumed and those supporting resources should be available and ready. In Step 3, you need to identify and list the necessary resources in **Form 3-1**. In the subsequent steps, you will review risks to the listed resources, and their vulnerabilities. You will consider what measures are necessary to protect, secure availability, or prepare alternative options. Therefore, this list is very important and basic information in your BCP planning.

List the necessary resources in **Form 3-1**, dividing them into three categories (1) internal resources, (2) essential services, and (3) business partners. The first category is internal resources, which are usually under your company's control. These include buildings, equipment, machinery, tools, stock, materials, IT systems, documents, and drawings, etc. It is also important that human resources be reviewed from the perspective of employees' special skills and expertise.

The second group is, Essential Utilities such as electricity, gas, fuel, water, and sewage etc. Communication network (phone and Internet) and transportation network (roads, railroads, and ports) are included. These resources are provided by public entities. They are not usually under your control. Typically, ordinary companies cannot afford to arrange alternative sources for essential services due to the prohibitively high costs, and their availability. Therefore, these would become a basic condition for resumption of your PAs.

The third group is, your company's Business Partners and your upstream and downstream business chains. This group (direct and indirect partners) is not only your suppliers, but also your customers. In the two catastrophic natural disasters, the East Japan Earthquake and Thailand's Floods which occurred in 2011, many companies were seriously affected by disruptions to their supply chains. Many companies, which were not directly damaged by the natural disasters, were also seriously affected.

Form 3-1 Necessary Resources for Prioritized Activities

Necessary Resources for Prioritized Activities		
Type of Resources		Contents
Internal Resources	Building	
	Equipment / Machinery	
	Inventory	
	People	
	IT System	
	Fund	
	Other:	

Essential Social Services	Electricity	
	Gas	
	Water	
	Phone / Communication	
	Traffic / Roads	
	Other:	
Supplies	Direct supplier	
	2nd, 3rd Supplier	
	Customer	
	Other:	

(Note: The processes of identifying Prioritized Activities, setting Recovery Time Objectives, and listing necessary resources constitute a Business Impact Analysis (BIA). This term is commonly used in BCP.)

Step 4 Risk Assessment – Know Your Disaster Scenarios

In Step 4, you need to clearly identify risks which may seriously threaten your company (or may lead to a catastrophic scenario). You list the kinds of risks your company is exposed to. You analyze and evaluate those risks, and select risks which your company needs to take measures with 'high priority'. You also need to analyze and estimate to what extent your critical resources may be damaged by such risks, and how long it will take to restore such damaged resources. You compare the estimated restoration period with your company's Recovery Time Objective (RTO), set in Step 2, and determine which resources are critical to avoid catastrophic scenarios.

The resources which need attention include those where the restoration period exceeds the RTO and those that do not exceed it. If essential services such as electricity, water, phone etc, take a longer period for the service to be restored than your RTO, you may need to reconsider your RTO and wait until such resources and services become available.

Form 4-1 assists in the process of identifying, evaluating, and prioritizing risks. First, enter the risks your company is exposed to in the leftmost column. These are risks which could potentially cause a disruption in your business operations or could lead to a worst-case scenario (bankruptcy). For example, risks to your company might include natural disasters such as earthquakes, floods, and typhoons, or industrial disasters such as fire, explosion, blackout, leakage of chemical substances or intentional acts such as terrorist attacks, sabotage. The past history of such natural disasters, hazard maps, and risk information for your local area may be published by local governments and public organizations. If available, these can be very useful resources in conducting the risk assessment in this step.

Next, evaluate the “Impact” and “Likelihood” of each risk, marking each as either H (high), M (medium), or L (low) in the columns indicated. The criteria for rating these items are shown in Table 4-1.

Table 4-1 Risk - Likelihood/Impact Scoring Scale

Rank	Likelihood	Impact
High	Likely	Disastrous, Severe damage Threatening the company Death, multiple injuries
Middle	Moderate likely	Medium level damage Affecting operations, Multiple injuries
Low	Unlikely	Insignificant damage Minor injuries

After you have entered L ,M or S in both the “Impact” and “Likelihood” columns of **Form 4-1**, assign them an order of priority in which measures need to be taken. Indicate the priority number in the rightmost “Priority” column.

Form 4-1 Risk Impact and Likelihood Comparison Chart (sample)

Risk	Impact	Likelihood	Priority
Earthquake	H M L	H M L	1
Flood	H M L	H M L	2
	H M L	H M L	
	H M L	H M L	

Next, select a top priority risk (e.g. earthquake) and estimate the level of damage and length of time needed for the restoration of resources should they be damaged as the result of an incident or a disaster. The estimated restoration period should be compared against your company’s Recovery Time Objective (RTO), which was established in **Form 2-3**. Determine the resources for which measures need to be taken.

Proceed through the following eight steps and enter the appropriate data in the columns indicated (by arrows) in **Form 4-2**. Separate forms should be completed for each selected risk because the expected damage could vary widely by risk.

- 1) Enter the critical resources that were identified in Step 3
- 2) Enter the prioritized risk
- 3) Enter an outline of estimated damages to your facilities

- 4) Enter estimated levels of damage
- 5) Enter estimated periods for repair, restoration, or recovery
- 6) Mark the graph bars to correspond to the length indicated in item (5) above
- 7) Draw your RTO line (see your **Form2-3**)
- 8) Determine whether measures need to be taken for each listed resource to achieve RTO and place a mark in the column indicated

The resources for which measures may need to be taken may include both those whose restoration period exceeds your RTO and those that do not. If essential services such as electricity, water, and phone service take longer to get back online than your RTO, you may need to reconsider your RTO in consideration of the wait-time needed for the restoration of those resources.

The details regarding measures to be taken will be reviewed in Steps 5 to 7 below.

Examples of such measures are as follows:

- 1) Protection (Prevention) and Mitigation- see Step 5
 - Anti-earthquake reinforcements to buildings
 - Installation of equipment restraints
- 2) Emergency Response (Incident Response)- see Step 6
 - Evacuation plan formulation
 - Development of safety confirmation procedures
- 3) Strategies for the Early Resumption of Prioritized Activities- see Step 7
 - Alternate site recovery
 - IT system back ups

The required measures differ depending on the type of disaster experienced since damage estimates can vary widely. This Guidebook guides you through a process in which you select one risk and then proceed to estimate the damage that would be sustained as a result. For SME owners, it might be difficult at first to prepare for multiple risks. We suggest starting with your top priority risk first, and then repeat the process for other risks if your company can afford to do so.

5. Your Survival Strategies

In this section, you are going to work on the core items of your company's BCP. You will plan and implement your company's Business Continuity (BC) Strategies to achieve the Recovery Time Objective (RTO) you set in Step 2 (**Form 2-3**). There are three phases to a BC Strategy, all of which are important and necessary for achieving your RTOs. You will identify the necessary measures for your company in consideration of these three phases

(1) Protection and mitigation (Step 5)

This phase involves the protection (prevention) or mitigation of the damage caused by an incident so that Prioritized Activities can be resumed quickly in accordance with their RTOs. Protection and mitigation measures primarily consist of pre-incident measures, but can also include important post-incident measures intended to contain and minimize damage.

(2) Emergency response (Step 6)

When a disruption affects your company, you have to stabilize the situation by eliminating danger and protecting your people, assets, and business operations. This should be done immediately to prevent an emergency

situation from becoming an uncontrollable crisis. The first priority of emergency response is to protect and rescue people. Subsequent priorities are to eliminate threats and secure safety, protect assets, and prevent further damage and secondary disasters.

(3) Continuity and recovery strategies (Step 7)

This phase involves planning and implementing strategies for continuing (or resuming) Prioritized Activities and then restoring normal operations. Continuity strategies focus on restarting Prioritized Activities immediately using alternative or temporary measures. Recovery strategies focus on restoring operations to pre-incident levels.

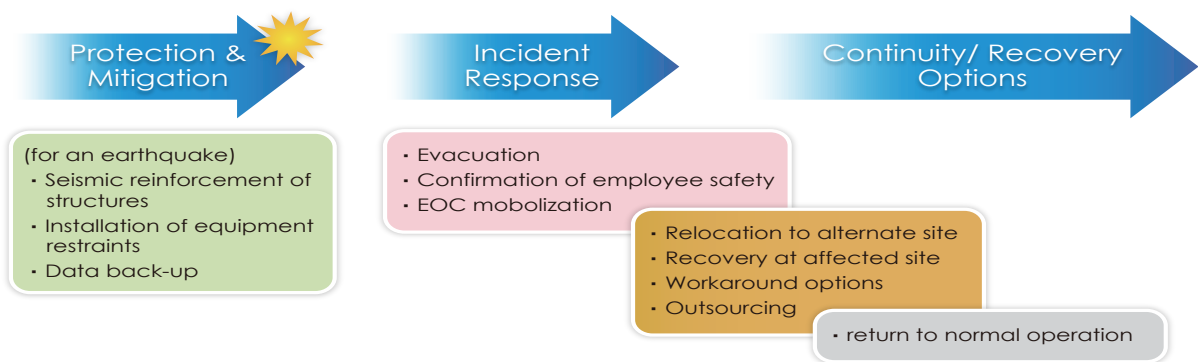


Figure 5-1 Three phases of a Business Continuity Strategy

Step 5 Do Not Forget Pre-Disaster Protection and Mitigation

To successfully resume operations as planned, the damage to the supporting resources should be contained, to the extent that early repair and restoration would be possible. If such important resources sustain very severe damaged, your company may fall into a disaster scenario, and be forced to give up the recovery effort, or shut down for a long period of time. This would be the end of the business and therefore, the story! This is why pre-incident strategies of protection and mitigation are very important.

In Step 4 (**Form 4-2**) you identified which resources require that measures be taken to achieve your company's Recovery Time Objective (RTO). Those identified resources are vulnerable and might hinder the achievement of your RTO. In this step, you will select resources that require protection and mitigation measures and determine the details of those measures in order to avoid a level of damage that would make it impossible to recover your Prioritized Activities by the established RTOs.

In **Form 5-1**, enter (1) resources that require measures be taken, (2) objectives of those measures, (3) what measures to take, (4) specific plans for taking those measures, (5) implementation deadlines, and (6) the department in charge of implementation.

Form 5-1 Protection and Mitigation Measures for Key Resources (sample)

Resources	Objectives	What To Do	Your Plan	Implementation Deadlines			Department in Charge
				Immediately	Within 1 year	Mid to Long Term	
Personnel	Keep personnel safe	Provide instructions on evacuation safety	<ul style="list-style-type: none"> Make an evacuation plan and disseminate it to employees Conduct evacuation drills 				General affairs dept.
Buildings	Protect/mitigate damage to buildings	Check earthquake-resistance of buildings	<ul style="list-style-type: none"> Check earthquake-resistance of the building in which the headquarters is located 				General affairs dept.
		Make buildings earthquake-resistant	<ul style="list-style-type: none"> Make the headquarters building earthquake-resistant 			o	General affairs dept.
Facilities	Protect/mitigate damage to facilities	Install restraints to prevent equipment from falling over	<ul style="list-style-type: none"> Fix machine tools to the factory floor 				Manufacturing dept.
Systems	Protect/mitigate damage to buildings	Install restraints to prevent computers from falling over	<ul style="list-style-type: none"> Put servers at headquarters in a server rack 				Information systems dept.

Step 6 Emergency Response to Disaster

In Step 6, you consider immediate necessary responses to take, when the incidents occurs, to prevent the emergency situation from becoming an uncontrollable crisis. It is called emergency response or incident response. The first priority of emergency response is to protect and rescue people. Stabilization, to remove harm and secure premises, ensure safety and security of yourself, staff and customers protection of assets, and prevention of further damage. The potential for secondary disasters should also be considered.

First, you should understand the general picture of emergency response. As shown in Figure 6-1, there are a series of necessary activities in an emergency response. These activities have to be carried out, following necessary timelines and without delay. “(1) Evacuation and rescue” should start immediately by individual people when an incident occurs. Emergency Operation Center (EOC) should be called, if necessary, to take coordinated measures under unified command in your company. The activities of (3) to (8) are performed by the Emergency Operation Center, if it is set up.

The main necessary activities are (1) Evacuation and rescue, (2) Setting up Emergency Operation Center, (3) Safety confirmation of employees, (4) Stabilizing the situation and prevention of secondary damage, (5) Survey of damage, (6) Assets protection, (7) Safety confirmation of employees' commuting, and (8) Gathering and sharing information of incident/damage.

These eight activities are described in further detail below.



Figure 6-1 Emergency response to disaster

(1) Evacuation and Rescue

First, your company should have a general evacuation plan, which includes evacuation procedures, evacuation sites, evacuee guidance procedures, and names of evacuation activity leaders. You will use **Form 6-1** to create your company's evacuation plan. You need to make sure all employees understand the evacuation plan and are able to safely evacuate as planned. Many companies give all employees a small emergency card containing such key information as what actions to take, where to evacuate, and emergency contacts. Employees are asked to carry the card with them at all times so that they can refer to it whenever necessary. Such an emergency card is highly recommended.

Form 6-1 Evacuation and Rescue Plan (sample)

Office/Factory	Head office
Evacuation site (meeting place)	Parking lot in front of the head office building
Leader	Person in charge: Manager of the general affairs department Assistant: Deputy manager of general affairs department
Person in charge of rescue and medical care	Person in charge: Manager of general affairs department Assistant: Deputy manager of the general affairs department
Hospital	(name, address, telephone number) Name: ○○hospital Address: ○○○ Tel: **_****_****

In case of a natural disaster such as an earthquake or flood, the infrastructure (such as the traffic network) may be damaged. Your employees may not be able to get home and may have to stay on the company's premises or at an emergency shelter. Your company needs to prepare food, water, and other supplies (e.g., blankets, radios) for employees, and it is recommended to store enough necessary supplies (e.g., food and water) to shelter them for 3 days (see **Form 6-5**).

(2) Setting up an Emergency Operation Center

When an incident occurs that could affect your business, the company has to respond immediately to protect its people and operations. It is critical not to succumb to panic or chaos, but to behave calmly and make the best decisions possible while taking the necessary measures under the circumstances. In order for the company to carry out those activities in a unified and coordinated manner, you should establish an Emergency Operation Center (EOC) that can serve as a central command center.

The EOC's framework, members, duties, and procedures must be decided on in advance and put down on paper. **Form 6-2** will assist you in creating an EOC framework for your company.

a) EOC Leader

The leader is in charge of the overall activities of the EOC. The deputies must also be identified who will take over for the leader when he/she is absent. The order of succession for the authority and responsibilities of the leader should also be decided.

b) EOC members and roles

The members of the EOC should be appointed and a list of their names created and periodically updated. EOC members are required to convene at the EOC whenever the EOC is mobilized. EOC members must be selected from among those employees who would be able to convene on short notice. Form 6-2 lists the four functions shown below. If the size of the company requires, a team can be formed to carry out each function. You should decide on your company's EOC framework and the functions that best suit your company's needs.

1. Analysis and planning
2. Information gathering
3. Site operations
 - Stabilization
 - Rescue and medical care
 - Confirmation of employee safety
 - Sanitation
 - Logistics
4. Public relations

This function is for keeping internal and external stakeholders informed about the status of the company.

c) EOC mobilization criteria

When should an EOC be mobilized? You must decide the thresholds that must be met for the EOC to be mobilized and its members called to duty. You can establish these criteria by incident type and magnitude, such as "an earthquake measuring 6 on the Richter scale" or "a flood warning is issued."

d) EOC locations

The location where EOC members are to convene must be decided in advance. You should prepare for a situation in which your first choice location (e.g., the head office building) is unusable by selecting alternate EOC locations as well. EOC centers (including alternate sites) should be prepared for mobilization at any time, and thus equipped with communication equipment, IT and office equipment, and other supporting resources.

Form 6-2 Emergency Operation Center (sample)

Members	Roles	department/ name		Tel
	Leaders (including deputies)	CEO/ 0000 Director/ 0000 Director/ 0000		**_****_**** **_****_**** **_****_****
	Analysis and planning	00dept./ 0000		**_****_****
	Information function	00dept./ 0000		**_****_****
	Site operation function (stabilization, rescue and medical care, confirmation of employee safety, sanitation, logistics)	00dept./0000 00dept./ 0000 00dept./ 0000 00dept./ 0000 00dept./ 0000		**_****_**** **_****_**** **_****_**** **_****_**** **_****_****
	Public relations	00dept./ 0000		**_****_****
	Mobilization thresholds	- Earthquake measuring 6 on the Richter scale - Flood warning is issued		
Meeting place (including alternate locations)	Order of priority	Workplace	Address	Tel
	1	Head office	0000	**_****_****
	2	A office	0000	**_****_****
	3	B factory	0000	**_****_****

(3) Confirmation of employee safety

You must establish procedures for confirming the safety of your employees in advance. You will have to make sure that all employees promptly follow the established procedures in the event of a disaster. Your company should test its procedures by conducting drills, as these show how well employees follow the established instructions and how long it takes to complete a confirmation of the safety of all employees. Your safety confirmation procedures should include a way for employees to contact the company. Multiple means of communication should be identified (e.g. phone calls, e-mail, and Internet bulletin board) so that redundancies are built in. Remember the lesson learned from the catastrophic Great East Japan Earthquake of March 2011 (M9.0), after which the mobile phone network was non-operational across a wide area due to extensive damage and congestion. Since such risks are inherent when relying on a single mode of communication that utilizes the mobile phone network, backup methods must be identified.

Form 6-3 is an employee contact list with columns for each employee's department, name, telephone number, and e-mail address. This form can also be used as a checklist when confirming employee safety.

Form 6-3 Emergency Contact list (sample)

Department	Name	Telephone number	E-mail address	Safety status (to be entered in an emergency)
00dept.	0000	**_****_****	****@***.***.***	
00dept.	0000	**_****_****	****@***.***.***	
00dept.	0000	**_****_****	****@***.***.***	

(4) Confirmation of safe commuting conditions

When a disaster affects a widespread area across an entire region, the social infrastructure may be damaged. Your company has to decide whether it is safe to let employees go home or whether they will need to stay on the premises. You can do this by monitoring disaster and traffic information.

(5) Stabilization of the situation and prevention of secondary damage

When an incident occurs and creates a dangerous situation, you must work on stabilizing the situation to ensure employee safety and prevent secondary damage. This may include efforts to fight fires or prevent the spread of harmful substances.

(6) Survey of damage

Once the situation has been stabilized and safety has been secured, the damage to your company should be immediately surveyed. Your company will have to decide on any necessary repair and recovery plans, and must start on its recovery process as soon as possible. A sample survey form is shown in **Form 6-6**.

(7) Asset protection

Based on the damage survey results, you must protect and preserve your facilities and equipment. For example, you will want to take measures to prevent the damage from spreading and to secure your assets against theft.

(8) Compilation and sharing of information

When a disaster hits your region, it is critical that you gather the following information using various media, including television, radio, and the Internet:

- Disaster details
- Damage to the region (including the status of essential services and traffic conditions)
- Alerts and warnings from central/local government authorities

Your company should maintain communication with stakeholders such as suppliers, customers, public agencies, and financial institutions by gathering and sharing relevant disaster information. It is important to give your business partners status updates and information on your recovery plans so as to maintain your business relationships while you are engaged in recovery efforts.

Form 6-4 is a sample External Contact List.

Form 6-4 External Contact List (sample)

External Partners	Name	Tel.	E-mail address	Status (complete when an incident occurs)
Materials & Parts Suppliers	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
Logistics Service Providers	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
Equipment Maintenance Co.	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
Customers	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
Financial Institutions	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
Public Agencies, Local Government Offices	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
Essential Service Providers	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	
	0000	**_****_****	****@***.***.***	

Form 6-5 Storage List for Disasters

Categories	Items	Numbers of items to prepare
Food / Water	Drinking water	3 liters/person for 3 days
	Emergency food	3 day supply/person
Living supplies	Sanitation supplies (tissues, wet tissues, toilet paper, etc.)	3 days
	Utensils	Necessary numbers for people
	Portable toilets	3 days
	Plastic bags, tape	Equal to the number of people
	Blankets, sleeping bags	Equal to the number of people
	Portable gas and stoves	3 days
	Pots and kettles	3 each
	Pocket warmers	3 day supply/person
	Oil heaters, oil	Fuel for 3 days
Medical supplies	First aid kits	Equal to the number of people
	Folding stretcher	3
Tools	Tools (crow bar, pliers, hammer, shovel, cloth tape, stepladder)	3 each
	Helmet and gloves	Equal to the number of people
	Plastic sheets, tarps	3 sheets (10m×10m)
	Garbage cans, buckets	3 each
Support for getting people home	Rainwear	Equal to the number of people
	Maps	Equal to the number of people
Information gathering, communication	Radios, dry batteries	3 each
	Cell phone chargers	3 units per each model
	Loudspeakers	3 units
Other	Generators, generator fuel	2 units of fuel for 3 days

Form 6-6 Damage Survey Form

Surveyed location		
Employee injuries	Injured employees	Names:
Damage to buildings	Appearance	Large/ Medium/ Small/ None
	Inside	Large/ Medium/ Small/ None
	Safe entry	Yes/ No
Damage to assets	Equipment	(Damaged equipment / number of items)
	Communication equipment	(Damaged equipment / number of items)
	IT apparatus	(Damaged equipment / number of items)
	Fixtures and fittings	(Damaged items / number of items)
	Vehicles	(Damaged vehicles / number of items)
Damage to essential services	Electricity	Available/ Not Available
	Gas	Available/ Not Available
	Water	Available/ Not Available
	Landline phone service	Available/ Not Available
	Mobile phone service	Available/ Not Available
	Internet	Available/ Not Available
Neighboring situations	Fire	Available/ Not Available
	Other	
Business continuity		Disrupted/ Not Disrupted
Visitors		(Injured people)
Others		

Step 7 BC Strategies to Early Resumption

In Step 7, you develop your company's Business Continuity Strategies (BC Strategies) for resumption of Prioritized Activities (PAs) within Recovery Time Objectives (RTOs). You need to identify and prepare the internal and external supporting resources that are necessary to resume those activities.

There are key concepts for planning your BC Strategies that you need to consider to resume Prioritized Activities (PAs). In considering the concepts of BC Strategies, you are going to make plans for your own BC Strategies to achieve RTO of PAs.

Strategy 1: Resume PA at the damaged/affected site.

Strategy 2: Resume PA at an alternative site (either in-house or external facility)

Strategy 3: Resume PA by alternative methods (or workaround methods)

Your BC Strategies might be a combination of the above three strategies.

In the very early stage of your recovery planning, you have to decide where your company will restart critical operations (or PAs). One strategy is to resume at the damaged or affected site, another is to resume at an alternative site. Both strategies are necessary. Your company should be prepared for a scenario when the main facilities, such as, headquarter building or main factory are not usable. For SMEs that have limited resources, it might be very hard to prepare an alternate site. SMEs may only have one option to prepare a BC Strategy- to restore damage and recover at the affected site. You should remember that your company will be defenseless if your key facility is damaged to the extent that it becomes unusable. In the mid to long term, you should consider how to deal with this challenge. This process is not simply a paper exercise. The owner and/or senior management has to make business decisions as to how and where to recover prioritized activities from the disruption.

Form 7-1 summarizes the BC Strategies for your company, and should be completed based on the concepts listed above. Enter your selected BC Strategy into the appropriate column of the form. Let's start with BC Strategy to resume at the damaged/affected site.

Strategy 1: You have to restore the damaged resources. The buildings and equipment/machinery may be damaged, and assistance by external construction company and machinery experts may be necessary. Essential services such as electricity, gas, and water are necessary to resume disrupted operations. Recovery of such essential services to your company may become the key to your company resuming operations. Therefore, you should estimate how soon those public companies are able to resume services. You may need to review your BC Strategy based on essential service restoration periods. The next strategy is to resume at an alternative site.

Strategy 2: You need to consider the location of the alternative site, and see if it is sufficiently distant from the current site and therefore is less likely to have been impacted/damaged by the same disaster. You should make sure that the essential services your company needs, are not be affected and will be available. This strategy requires that all necessary resources, for example, buildings, equipment, and machinery are available at this site. You also need to consider how to transfer the workforce, and that supplies of materials and parts are transported to this site. It will be important that you have built relationships with your suppliers, as you will need to find other sources of assistance and seek also corporation from external partners. This strategy is to resume PA by the alternative method.

Strategy 3: This strategy can be used in strategy 1: damaged site recovery and strategy 2: alternative site recovery. For example, old reserve equipment is used to replace the damaged, newer equipment. Manual work by human hand replaces disrupted IT systems. Your company selects what alternate methods that fit your company's operations. You also need to identify what kind of assistance is necessary from external partners.

External business partners can have significant impact on your business operations and BC Strategies. You cannot control your business partners. Therefore, what can you do with external partners in your BC Strategies? This will depend on your business relationship, but here some measures you can take to help mitigate the risk. First of all, you can check their preparedness levels in disaster management and BCP. Are they supportive of these matters or not interested at all? If they are interested, it is recommended to exchange what you and your partners have been doing in disaster management and BCP. It would be more desirable that you and your partners have periodical meetings and plan joint meetings or exercises.

Form 7-1 Continuity Strategy Summary

Continuity Strategy Summary				
Priority	Strategy Outline	Activities to Resume	Key Resources (bottleneck resources)	Necessary External Partners
Strategy 1: Resume at the damaged/affected site				
	(ex.) Restore damaged buildings and equipment and resume PA			
Strategy 2: Resume at an alternate site				
	(ex.) Start up an alternate factory/ office / shop			
	(ex) Activate back-up IT center			
Strategy 3: Resume using alternate methods				
	(ex) Start up using older methods, using spare (old) equipment			
Strategy: Other				

Now that you have decided on your company's BC Strategy using **Form 7-1**, you need to identify the resources necessary for executing this strategy. Complete **Form 7-2** to identify the necessary resources for each BC Strategy listed in **Form 7-1**. You will prepare **Form 7-2** for each BC Strategy. At the top of **Form 7-2**, enter the Prioritized Activity and strategy outline you are going to consider. There are columns of resources categorized into three groups: internal resources, essential social services, and external partners (same as **Form 3-1**).

Form 7-2 BC Strategy Planning sheet

Prioritized Activity		Strategy Outline				
Categories	Resources	What's to be done / needed	Details of Measures	To be done by when		Department in charge
				Short Term	Mid- Long Term	
Internal Resources	Building					
	Equipment / Machinery					
	Stock					
	People					
	IT System					
	(others)					
Essential Social Services	Electricity/Gas/ Water					
	Phone/ Communication					
	Traffic / Roads					
	(others)					
External Partners	Suppliers					
	Customer					
	(others)					

Next, enter the necessary measures in the relevant column for each resource. In this process, you should check your review results in **Form 4-2**, the Resource Damage Estimate Sheet (see column 8 where you identified which resources are needed for achieving the RTO). For the resources identified, decide what measures should be taken from the perspective of preventing and/or minimizing damage and expediting restoration.

The resources that are critical in determining the restoration period required (or bottleneck resources) should be carefully reviewed. Particular attention should be paid to finding out how soon those resources that are not under your control will be become available to you. You may need to flexibly revise your RTO and BC Strategy based on that review. Enter the deadline for implementing each measure, indicating whether it must be implemented in the short term (within 1 year) or the mid to long term (2 to 3 years or more). Also enter the departments in charge of those measures. Once **Form 7-2** has been completed with the designated departments and deadlines, you can use the form for managing progress on the implementation of measures. As stated above, this process

takes more than mere paperwork; it requires management decisions to be made by the business owner (or top management) in cooperation with their BCP Team. It is very important that top management exercise its leadership in implementing BC Strategies.

Your outside business partners have a significant impact on your business operations and BC Strategies. Since you cannot control your business partners, what role do they play in your BC Strategies? It depends on your business relationship you have with them, but you can start by checking into their preparedness levels by asking about their disaster management and BCP programs. Are they aware of such matters or uninterested? If they are interested, both parties would be well served by sharing what they are doing in terms of their disaster management and BCP activities. Ideally, you and your partners would hold regular meetings on this topic and plan joint meetings or exercises.

Step 8 Be Financially Prepared

Can you survive financially if your operation is disrupted for one or two months? The objective of Step 8 is to recognize the financial conditions of your company in case of an emergency, and to prepare appropriate measures in advance, to avoid bankruptcy even if income is suspended. If your company's operation is suspended, your company will lose revenue but still be required to pay ordinary expenditure such as, payroll and rent. And if your facilities are damaged, you will need cost recovery of your damaged facilities. What you need to do in Step 8, is to estimate how much money will be needed if your company sustains damage by a disaster; and consider measures that could be taken to fulfill any shortage. Key factors to consider in your financial analysis include.

- Understand how much revenue will decrease due to business disruption (Section 1)
- Estimate how much the recovery costs will be to resume your business operations (Section 2)
- Recognize how much ordinary expenditure will be incurred during disruption (Section 3)

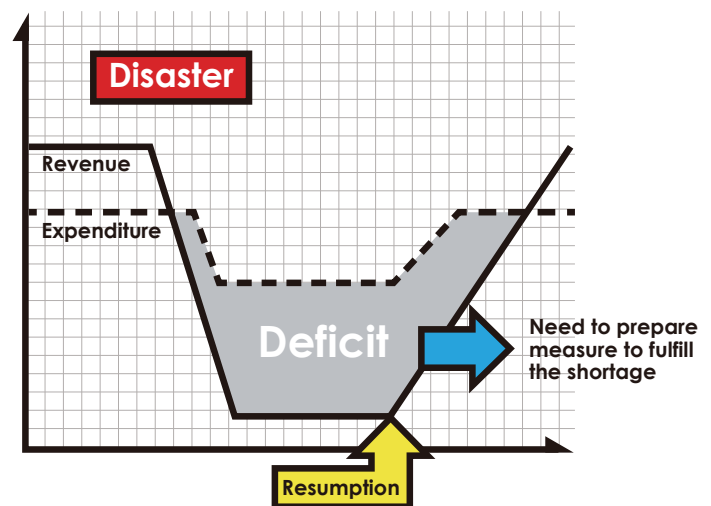


Figure 8-1 Deficit Occurs After Disaster

- Calculate the level of funds needed to fulfill the shortage. (Section 4) Note: It is recommended that a company should reserve cash and deposits equivalent to its one month revenue.

You can assess your financial status by completing **Form 8-1**.

(1) Check your available funds

You should check the amount of funds that you have on hand in reserves or that would otherwise be available if needed during a business disruption. First, fill in the total amount of available funds in **Form 8-1**. Examples of available funds include cash, deposits, and short-term securities. Additionally, your company might be able to get private funding from an owner of the company. Next you should check your company's insurance policies. Find out what types of insurance policies your company has and whether such insurance policies cover the disaster or accident in question. Also find out how much coverage you have. You should be aware that in most cases, it takes some time for insurance payouts to be made due the time required for investigations and settlement negotiations.

The bottom line of **Form 8-1** shows the total amount of available funds (A).

Form 8-1 Available Funds (sample)

Type	Amount	Other
Cash and Deposits	100,000	
Insurance	50,000	Fire / Flood /Earthquake
Available Funds (A)	150,000	

(2) Estimate recovery costs

Next you will assess the expenditures your company would incur as the result of a disaster and during the disruption period. You have already estimated damages and restoration periods for your important resources (Steps 4, 5, 6, and 7). Now you have to do some guesswork regarding how much it would cost to repair and restore the damaged resources that are essential to the resumption of your Prioritized Activities. Estimate the recovery cost for each main category of resources, as shown in **Form 8-2**. Buildings, equipment and machinery, fixtures and fittings, and inventory are listed as examples. Enter the expected total recovery cost for each category. The bottom line of **Form 8-2** shows the total amount of estimated recovery costs (B).

Form 8-2 Recovery Costs

Recovery Cost	Amount	Other
Building	10,000	
Equipment and machinery	5,000	
Fixtures and fittings	5,000	
Inventory	5,000	
Total Recovery Costs (B)	25,000	

(3) Summarize ordinary expenditures

There are ordinary expenditures that your company has to pay even during a disruption. These expenses include fixed costs such as payroll and rents on real estate and warehouses, as well as variable costs such as debt payments. You need to know the total monthly amount of your ordinary expenditures during a disruption period. Use **Form 8-3** to enter the expense items and total amounts. The bottom line shows the total ordinary expenditures (C).

Form 8-3 Ordinary Expenditures

Ordinary Expenditure	Amount	Other
Payroll		
Purchased supplies		
Rent		
Others		
Total Ordinary Expenditures (C)		

(4) Assess cash flow status

By completing processes (1), (2) and (3) above, you will have obtained the total amounts of your available funds (A), recovery costs (B), and ordinary expenditures (C). Enter those amounts in **Form 8-4** and calculate the balance (=A-B-C). If the balance is negative, your company will have a shortfall in necessary funds. If it is positive, your company is likely to have sufficient funds for weathering a disruption.

Form 8-4 Financial Status Sheet

Available Funds (A)	
Recovery Costs (B)	
Ordinary Expenditures (C)	
Balance (=A-B-C)	

(5) Financial measures

If the balance shown in **Form 8-4** is negative (indicating a fund shortage), your company needs to take financial measures to make up for that shortfall. You may need to increase available funds by taking out a loan from your bank or by cutting down on redundant costs to decrease expenditures. In many cases, the national and local governments provide low interest disaster loans for SMEs that have been affected financially by a disaster. It is therefore important to research what kinds of financial support programs might be available to your company.

Form 8-5 Financial Measures (sample)

Financial Measures	Amount	Detail
(example) Borrow from bank	100,000	Check the amount every December
(example) Disaster loan	150,000	Apply when hit by a typhoon

Step 9 Exercise Makes Your Plan Functional

In Steps 5, 6, and 7, your company has made various plans of BC Strategies. Below are questions related to some of those plans. How confident can you answer "Yes" to the following questions?

- Can all employees (and customers) evacuate promptly and safely, following your evacuation plan?
- Can all employees call your emergency phone number to report safety confirmation?
- Can EOC members gather properly and immediately at the meeting place and undertake their designated role?

Planning and executing plans are different tasks. Your company's Business Continuity Plans should effectively work in the case of an emergency as planned. The purpose of exercise is to ensure that your company's plans work effectively and achieve its objectives. Exercise is intended to not only test its performance, but also to empower employees and provide them with education and training to enhance their knowledge and expertise.

Some examples of the main exercises are listed below.

- Evacuation Drill: test and practice safe and prompt evacuation to the designated location.
- Safety Confirmation Exercise: test and practice employees' emergency calls and safety confirmation.
- Launching EOC Exercise: test and practice starting up EOC launch and conducting designated roles by EOC members.
- Backup Data Recovery Exercise: test and practice recovery by backing up data.
- Re-starting Operation Exercise: test and practice resuming operations after disruption.
- Launching Alternative Site Exercise: test and practice starting up operations at an alternate site.

There are many types of exercises that can be conducted. It is recommended that you conduct any exercises that your company thinks necessary and feasible. You can increase the level of complexity of your exercises and adopt different types of exercises to improve your company's business continuity capabilities.

Use **Form 9-1** to create an exercise plan for your company. The post-exercise review is important for identifying any deficiencies or problems, so that your company can make any necessary improvements.

Form 9-1 Exercise Plan

Type of Exercise	Aim	Target Group	Date of Exercise	Post Review

6. PDCA: Continuous Improvement

Business Continuity Plan refers to your company-wide efforts to develop your capabilities for resuming critical operations (Prioritized Activities) after a disruption caused by a disaster. It is not easy to establish such capabilities in a short period of time, but it is essential to continuously improve and enhance them over time. We strongly recommend that you utilize the PDCA Cycle (Plan, Do, Check, Act) for your company's continuous BCP improvement.

Step 10 Ongoing Review and Improvement

You have already gone through the first two phases (Plan and Do) of four phases. In Step 10, you finish the remaining Check (monitor and review) and Act (maintain and improve) phases.

(1) Review and Check Your BCP

To make your company's BCP most effective, you should monitor and review your company's BCP activities. Your entire BCP activities – before, during and after an incident - should be reviewed.

Use **Form 10-1** to assist in this process, proceeding through each of the 10 steps outlined in this Guidebook.



You should ask the following questions for the review of each step.

- Are BC activities (which have been decided and planned) effectively done?
- Are there any tasks and problems for improvement?
- Are there any changes to internal and external circumstances which are needed to be considered?
- Are there any areas or items which were not included in your BCP, but should be included?

Form 10-1: BCP Review Form

Step	Items to Review and Check	Related Forms	Currently Effective	Changes in Business Environment	Issues to Review
1	BCP Framework Purpose, scope, BCP leaders and team members	1-1, 1-2, 1-3	Y/ N		
2	Prioritized activities, recovery time objectives				
3	Supporting resources Bottleneck resources				
4	Surrounding risks Expected damages				
5	Protection and mitigation measures				
6	Emergency response, EOC, safety confirmation, risk communication				
7	Continuity and recovery measures				
8	Exercises, training				
9	Cash flow for emergencies Financial measures				
10	Monitor, review, and improvement				

This review and check process should be conducted periodically, at least once per year. If there is any business environmental change in your company, such as, change of partner companies (suppliers or vendors), core business operations (products or services), IT system or M&A, location changes etc., you should pay attention to possible effects of these changes. These factors may have not been considered or may have been omitted in your reviews, and therefore, you may need to reconsider and make the necessary changes to your BCP activities. It is important to periodically review and not miss the opportunity to update your BCP. These internal reviews are usually done by BCP teams, lead departments and internal audit departments.

(2) Management Review

In addition to the above Review and Check processes, senior management have to proactively initiate a review of the company's BCP at least annually, and ensure that your company's BCP has been managed effectively and the PDCA cycle is working. **Form 10-2** is for management review. It should be understood that management review works as strong drive to cycle PDCA cycle.

Form 10-2 Management Review Sheet

Check & Review Items	Person in Charge	Due Date	Top Management



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