

Business Continuity Planning Guidelines for an Infectious Disease Outbreak

(Executive Summary)

2020.04.

This document is an abbreviated version of the guidelines for Corporate Business Continuity Plan (BCP), focused on key takeaways and compiled as a concise checklist. It aims to help companies better understand and develop their business continuity plans.

The step-by-step instructions guide companies in examining their crisis response capabilities and action plans.

- ※ Companies may adjust the guideline applications based on their specific situations and business characteristics.
- ※ This document is available for download from websites of the Ministry of Trade, Industry and Energy (MOTIE), major economic organizations, and industry associations, as well as from the Coronavirus Disease-19 site of the Korea Centers for Disease Control & Prevention (KCDC).
- ※ All government directions related to COVID-19, including this document, are available from the Coronavirus Disease-19 website (ncov.mohw.go.kr).



산업통상자원부

Ministry of Trade,
Industry and Energy

1 BCP introduction

1. Purpose of this document

- This executive summary of “Business Continuity Planning Guidelines for an Infectious Outbreak” is designed to help companies learn about and compile actionable Business Continuity Planning with step-by-step instructions.

2. What is BCP?

- BCP or Business Continuity Plan is a prepared crisis response system that enables prompt and systematic responses, allowing the critical businesses to continue in the middle of a crisis.
- BCP should cover not only immediate responses to the outbreak of a contagious disease but also the management of all the business activities associated with the flow of products and information from sourcing to customers (product development, procurement, production, transportation, and sales).

3. Need for BCP

- A BCP can help companies enhance their capabilities to cope with an unexpected outbreak of infectious diseases such as SARS, MERS, novel influenza, and COVID-19.
- Companies can maintain their intrinsic corporate value while minimizing the damage from contagious diseases.
- Companies can make a swift and systematic return to business as usual after the outbreak is brought under control.
- A BCP can add to long-term corporate value by helping companies to accumulate experience and expertises to operate during an infectious disease and enhancing corporate crisis response capabilities.

4. Considerations prior to BCP development

- Identify areas critical to business continuity.
- Assess the supply chain for areas that may lead to a halt in production and consider building an alternative supply chain.
- Study a plan to secure substitute resources for business continuity (human resources, materials, equipment, and facilities).

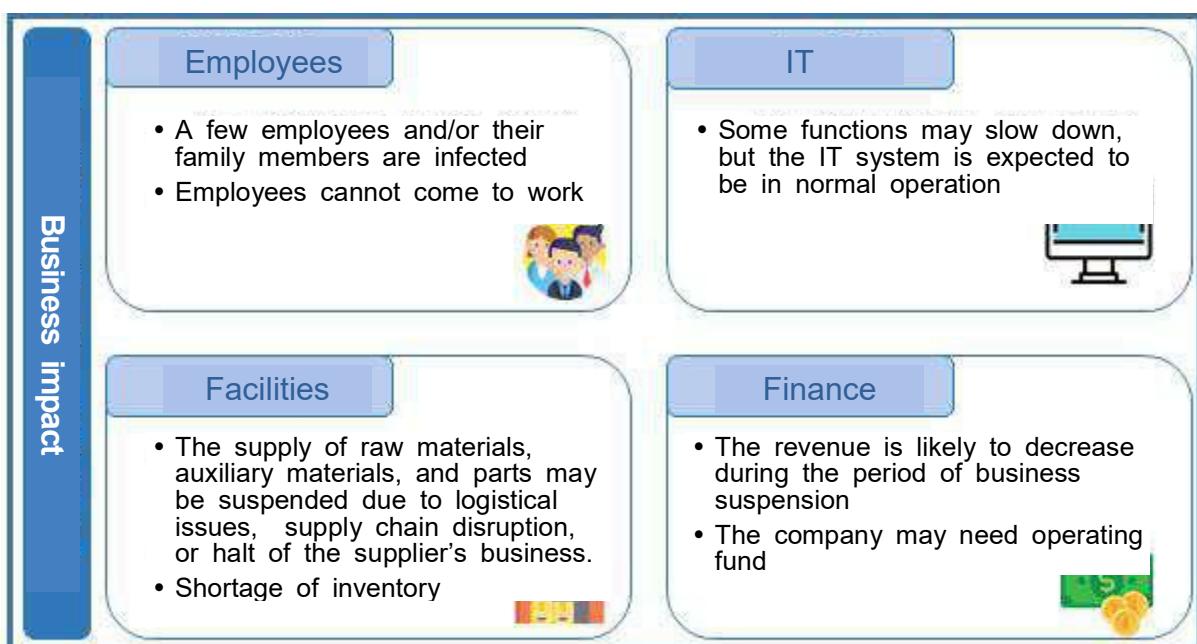
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Business impact of an infectious disease outbreak

1. Factors affecting business

- Shortage of human resources including full-time employees, temporary staff, and contractors (due to quarantine, having to look after family members such as children, or the need to avoid public spaces)
- Customer order cancellations or procedural delays in exports
- Supply chain issues such as the suspended supply of materials
- Changes in demand for specific items or services such as disinfectants, masks, and delivery services
- Limitations on business trips and meetings
- Potential disruption of other (infrastructural) services such as telecommunications, financial services, banking, water, electricity, medical supplies, fuel supplies, and food.

☞ **Outline where and to what degree an infectious disease may affect the business.
(Example diagram below)**



2. Reasons for shortage of human resources

☛ Assess human resource management considering the following factors.

- Employees become ill or go into quarantine due to the infectious disease (suspected or confirmed cases).
- Employees work as volunteers for the community in areas such as emergency service support.
- Employees have to stay at home to look after children (if children fall ill or the school is closed) or other members of the family.
- Employees wish to avoid public areas such as gatherings or public transportation.
- In worst case scenarios, employees die or become handicapped due to the contagious disease.

3. Reasons for disruptions to supply chain and production plans

☛ Assess supply chain management considering the following factors.

- Supplier operations are suspended due to the outbreak of an infectious disease.
- The unavailability of regular means of transportation, such as airplanes, disrupts the supply of raw materials from overseas and causes a stock shortage.
- Occurrence of confirmed patients and consequential halt of the production facility disturb the production plan.

4. Reasons for issues in finance and funding

☛ Assess financial status considering the following factors.

- A decrease in exports (including possible complete suspension) and a decline in profit due to suspended operations lead to delay in paying contractors or suppliers.
- Failure to meet production plans and ensuing breach of contracts lower the company's corporate credit rating and result in creditor demands for early repayment of the loan.
- The recovery costs need additional funding for IT backup, a restart of suspended facilities, and employee salary for paid leave.

5. Reasons for IT and infrastructure problems

☛ Assess IT infrastructure considering the following factors.

- A closure of crucial IT/security facilities limits access to information networks necessary for business operation.
- Immediate implementation of the work-from-home program brings out information security issues resulting from lack of telecommuter management systems.

3 Preparation for BCP development

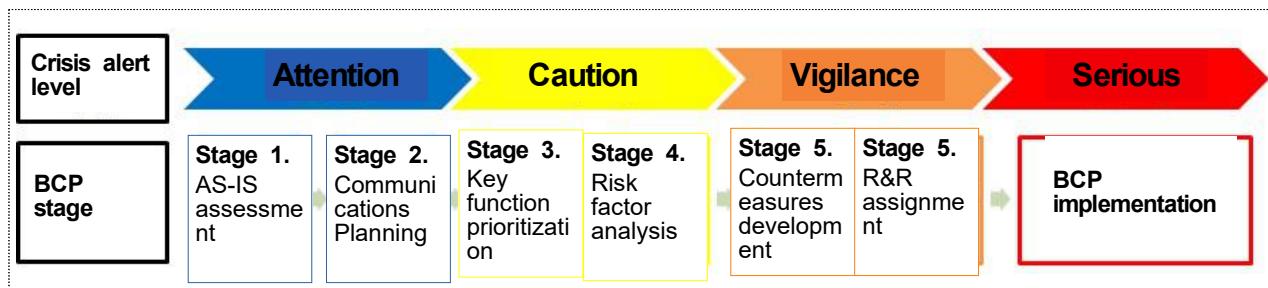
- The level of details for BCP varies depending on the type, complexity and size of the business.
- First and foremost, it is necessary to assess what activities are business-critical (essential functions) and how the infectious disease affects the business.
- A complete understanding of the company is crucial in prioritizing business functions, and the following areas need to be considered.
 - Critical processes, operations and functions, internal and external interdependencies (with people or with other companies), and other factors that may affect business.
- The following areas need looking into, but the whole list may not necessarily apply. Companies may make a selection of what fits their situations.

	Description
Human resources	Determine and train substitute employees to maintain essential (or all) functions. Assess the feasibility of existing employees working overtime or taking on more responsibilities.
Equipment	Check the inventory of critical equipment and evaluate the need for new equipment.
Available assets	Review equipment, facilities, systems, computers, machines, tools, and vehicles. Confirm the connectivity of telecommunications equipment within the premise or with external networks. Include functions to access the remote work or telecommuting system.
Business contracts	Review contracts yet to be fulfilled and their validity.
Succession line	Confirm the succession plan and the line of authority in case the top management, including the CEO, becomes absent. The delegated persons should have received training for the position.
Finance	Payroll, finance, and security
Emergency contact network	Manage the latest contact details of employees, customers, and business partners.

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BCP development process

- Establish and implement a BCP according to the Korean government's crisis alert level.
 - * In the case of COVID-19, the Korean government issued crisis alerts in the order of Caution (Jan. 20, '20) → Vigilance (Jan. 27) → Serious (Feb. 23).



Disaster management tiers (Alert level)		BCP Stages	
① Attention (Blue)	The occurrence of an infectious disease starts in Korea, or a new contagious disease emerges and spreads overseas.	Establish BCP	Stage 1 Stage 2
② Caution (Yellow)	A domestically occurring infectious disease spreads limitedly, or a new infectious disease enters Korea from overseas.		Stage 3 Stage 4
③ Vigilance (Orange)	The domestically occurring infectious disease spreads in local communities, or the new infectious disease from overseas spreads limitedly.	Prepare to implement the BCP	Stage 5 Stage 6
④ Serious (Red)	The domestically occurring infectious disease spreads countrywide, or the new contagious disease from overseas spreads in local communities or countrywide.	Implement the BCP	Implemented

※ This process is for companies that are yet to establish a BCP.

Stage 1

Evaluate the company's current status by the BCP checklist

- ☞ The following checklist outlines the necessary steps for each stage of prevention, preparedness, response, and recovery when a contagious disease occurs and can be used to facilitate an audit.
- ☞ This set of twenty questions help assess the company's level of preparedness and responsiveness to the outbreak of an infectious disease.
- ☞ Please establish BCP by focusing on the steps marked 'not started.'

	Necessary steps	Complete	In progress	Not started
Emergency contact network and internal/external communications				
1	Do you regularly update the contact details of employees, business partners, and key customers?			
2	Have you read and acquainted yourself with the government's directions such as the workplace responsiveness guidelines?			
3	Are the issues related to the infectious disease well communicated throughout the organization?			
4	Have you completed courses to train employees and their family members on basic knowledge of the contagious disease and preventative measures?			
Key business activities and necessary resources				
5	Have you assessed core business activities and prioritized them?			
6	Have you identified core team members for business continuity and developed a contingency plan for a potential absence of the core employees and top management?			
7	Do you have a full picture of the necessary and available resources for essential business functions?			
8	Do you have sufficient stock of hygiene and cleaning materials?			
9	Do you have an alternative supply chain management plan in case of a disruption to the supply of raw materials?			
10	Are you backing up important data crucial for business?			
11	Have you secured adequate operating funds in preparation for a possible suspension of business? Do you have a specific funding arrangement in the plan?			
12	Have you reviewed the insurance policies the company holds and their coverages?			

	Necessary steps	Complete	In progress	Not started
	Coping with the crisis			
13	Have you announced the occurrence of a suspected or confirmed case of infection to all stakeholders?			
14	Are there preventative measures against infection at the workplace, such as guidelines for hygiene or a management plan for multi-user facilities?			
15	Have you established an actionable alternative work plan if a large number of employees become absent?			
	Emergency organization structure			
16	Have you drawn up an emergency organization chart that can be put in immediate effect upon a crisis?			
17	Are the roles and responsibilities of the response team and the team members clearly defined?			
	Recovery and follow-up actions			
18	Have you estimated the potential damages considering different durations of business suspension (financial impact as well as customer relations) and the recovery time?			
19	Have you developed a recovery plan based on the prioritized core businesses and available resources?			
20	Do you have a recovery plan for human resources management, including how to bring back employees who recovered from infection?			

Stage 2 Review the communication plan for the BCP

- ☞ For BCP to be fully effective, the internal and external communications should be maintained so all employees remain informed of their roles and can participate in coping with the infectious disease.
- ☞ The target audience should include all parties who visit the business premise, including employees, secondees, contractors, and others.
- ☞ Please study information delivery methods for transparent communication of the infection status in and outside of the organization, and develop the training plan.

[Form 1] Communications plan

Topic	Audience	Key messages	Delivery method	Note
	<i>Employees, personnel in charge, customers, or suppliers</i>		<i>Email, fax, fixed-line, etc.</i>	<i>Plan for when, who, and how to deliver the message and how to confirm the receipt</i>
<i>Outbreak status</i>	<i>Employees, labor union, customers, business partners, and KCDC</i>	<ul style="list-style-type: none"> • Number of confirmed patients • Movement history • Scope and schedule of disinfection • Timing of business resumption 	<i>Email, fixed-line, company broadcasting system</i>	<i>Immediate action upon the occurrence of a confirmed case, Mr. Kim in charge</i>
<i>Plan for business suspension</i>	<i>Employees, labor union, customers, and suppliers</i>	<ul style="list-style-type: none"> • Reasons for business suspension • Plan for resumption • HR management and maintenance during the period of suspension 	<i>Email, fixed-line, company broadcasting system</i>	<i>CEO John Smith</i>

Stage 3 Identify and prioritize critical business activities

- ↳ Identify the types and scope of critical business activities that must continue during a crisis and describe resources necessary for those activities.
- ↳ List main business functions in order of priority. For an accurate understanding of the characteristics of the function (product category), assess the impact risk from the infectious disease and internal/external dependencies.

[Form 2] Core business prioritization

Function	Impact on business	Internal/ External	Necessary resources	Priority
<i>List main product and services and prioritize them in order of importance</i>	<i>High(3), Middle(2), and Low(1), reflecting the impact on financials, customer relations, etc.</i>	<i>Is the product or service for an internal function or external sales?</i>	<i>Support necessary for the corresponding product or service (e.g., IT, information, human resources, facilities, supplies, etc.)</i>	<i>High priority for business recovery</i>
<i>Part A for sales</i>	<i>High (3 points) (A delay in delivery is highly likely to cost the customer)</i>	<i>External</i>	<ul style="list-style-type: none"> • Four employees or more • Injection molder • Conveyer belt • Equipment set 	<i>1</i>
<i>Part B for sales</i>	<i>Middle (2 points) (A delay in delivery may cost the customer, lead to a breach of contract, and worsen the cash flow)</i>	<i>External</i>	<ul style="list-style-type: none"> • Two employees • Automated system • Utilities such as electricity and Internet • One forklift for transport 	<i>2</i>

Stage 4

Analyze the risk factors associated with an infectious disease outbreak

- ☞ List and work out in detail the risk factors known to be associated with the outbreak of an infectious disease. Evaluate how such risks affect critical business functions and the likelihood of an impact.
- ☞ Identify the risk factors related to key essential resources such as human resources, suppliers, IT, and production facilities, and prioritize them based on their contribution to the continuity of critical business functions.

[Form 3] Risk factor analysis for each function

Function	Confirmed risk factors	Impact on business		Likelihood	Priority
<i>By order of priority in Form 2</i>	<i>Employee absence, data loss, failure to procure, raw materials, etc.</i>	<i>High-risk function upon the occurrence of an infectious disease?</i> <i>High(3), Middle(2), and Low(1)</i>	<i>Likelihood of happening</i> <i>High(3), Middle(2), and Low(1)</i>	<i>Magnitude of the risk factor</i> <i>X</i> <i>Likelihood of happening</i>	<i>Order based on the need for countermeasures</i> <i>(From high score)</i>
<i>Part A for sales</i>	<i>Employee absence</i>	<i>High (3 points)</i>	<i>High (3 points)</i>	<i>9 points</i>	<i>1</i>
	<i>Impossible to procure raw materials</i>	<i>Middle (2 points)</i>	<i>Middle (2 points)</i>	<i>4 points</i>	<i>2</i>

Stage 5 Review countermeasures against the risk factors

- ☞ Before the infectious disease sets to spread wide, provide specific details on the necessary counteractions following the priority of risks determined in the fourth stage.
- Develop countermeasures and appoint person-in-charge with the focus on the compilation of internal and external emergency contact networks, backup of critical data, management and checkup of hygiene kits, confirmation of available funds and list of contracts, and planning for an alternative supply chain.
- ☞ After the contagious disease has spread, it is crucial to review: ① response plan to the occurrence of suspected or confirmed patients and disinfection procedure; ② alternative work plan in the event of a massive number of absences.
- The following tips for workplace management will be a useful reference.

[Form 4] Countermeasures to reduce the impact of the risk factors

Confirmed risk factor	Countermeasures	Timing	Required resources and information	Person-in-charge
<i>By order of priority given in Form 3</i>	<i>Measures that can be taken before an infectious disease emerges</i>			
<i>Employee absence</i>	<ul style="list-style-type: none"> • Disinfect hands when entering the premise • Install thermal scanners • Prepare alternative or flexible work program 	<i>Immediate</i>	<i>Disinfectant</i> <i>Thermal scanner</i> <i>Alternative work program</i>	<i>OO Kim</i>
<i>Impossible to procure raw materials</i>	<ul style="list-style-type: none"> • Diversify suppliers of the raw materials • Increase the inventory by 20% 	<i>Crisis alert at 'Attention'</i>	<i>Contact info of supporting agencies</i> <i>List of suppliers for materials</i> <i>Legal information regarding contracts</i>	<i>OO Park</i>

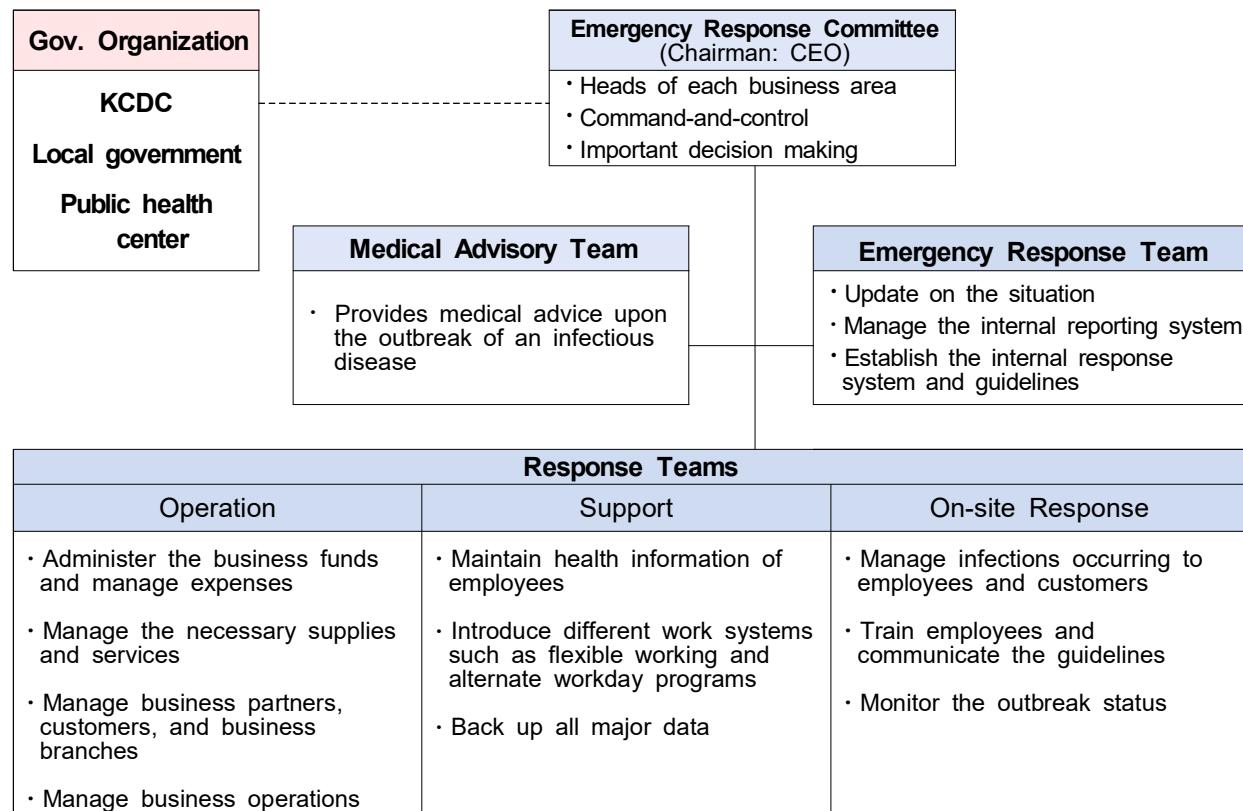
< Workplace management tips >

Minimize contacts	<p>※ It is vital that employees minimize contact with other people to keep the risk of spreading infectious disease at the minimum possible.</p> <ul style="list-style-type: none">- Recommend teleconferences (via telephone, video calls, or the Internet), work-from-home, flexible hours, or working in shifts.- Reduce business trips, meetings, workshops, and in-person training programs.- Discourage gathering at lounges, rest areas, or other social spaces.- If it is inevitable to hold a face-to-face meeting, use the largest meeting room available so that attendees can keep a minimum of one-meter distance. Avoid handshakes or hugging, and keep the meeting room as open as possible. Keep the meeting short.- Advise employees against hobbies, leisure activities, and religious gatherings that may expose them to infected patients.- Install a protective glass barrier for employees whose role involves frequent face-to-face contacts, such as counter staff or drivers for public transportsations.- For premises like call centers where many people work in a closed space, install workstation dividers or introduce shift work to minimize the number of employees working concurrently in the same area.
Publicize action plans for hygiene	<ul style="list-style-type: none">- Plaster notices with hygiene tips at the entrances, shower facilities, washing basins, and common spaces of every single premise.- Use brochures, newsletters, emails, employee bulletin boards, and payroll slips to communicate the importance of hand hygiene and the clean environment during the occurrence of an infectious disease.

Stage 6

Assign specific roles and responsibilities for BCP implementation

- ☞ Form an emergency response unit for implementation of the BCP and assign roles and responsibilities to each team and individual team member.
- The following example of an emergency organization chart will be a useful reference.
- ☞ Assemble an external emergency contact network with descriptions on when to contact and what to report by the institution. Share the contact details with all employees.



* The above emergency organization chart is for reference only. Please modify the structure depending on the characteristics of your business.

[Form 5] Members and contact details of the Emergency Response Team

Contact details and roles of Emergency Response Team				
Team (Leader)	Main phone no.	Main mobile no.	Role in case of a crisis	Assistant (Backup, assistant, etc.)
Operation (OO Ahn)	02-000-1111	010-1111-1111	Manage the inventory of raw materials	(Team member) OO Lee, OO Kwon
On-site Response (OO Koh)	02-000-2222	010-2222-2222	Check the health status of employees Contact relevant organizations if an employee shows symptoms	(Assistant) OO Sohn

[Form 6] Roles and responsibilities for each team

Team actions				
Name of the team :		Team leader :		
		Deputy leader :		
Actions	Necessary action			
Before the occurrence of an infectious disease		Person in charge		Necessary resources
	<i>Place disinfectants</i>	OO Lee		<i>Disinfectants, hand sterilizer, thermal scanner, table</i>
	<i>Train employees</i>	OO Na		<i>The government guidelines, communications systems such as the company intranet or email system</i>
Upon the occurrence of an infectious disease		Person in charge	Timing	Necessary resources
	<i>Quarantine patients and track contact history</i>	OO Kim	<i>Immediate upon the occurrence of a confirmed case</i>	<i>Quarantine facility for patients Internal contact network</i>
	<i>Communicate to employees</i>	OO Yu	<i>Immediate upon the occurrence of a confirmed case</i>	<i>Company intranet Internal contact network Website posting</i>
	<i>Update the government guidelines and current status</i>	OO Song	<i>Update daily</i>	<i>Information on the government guidelines</i>
In the recovery stage		Person in charge	Timing	Necessary resources
	<i>Manage the returning employees</i>	OO Koh	<i>1 week</i>	<i>Confirmation on the employee's willingness to return to work Guidelines by the Ministry of Employment and Labor Return-to-work support program provided by the government</i>
	<i>Investigate and apply for the government financial aid</i>	OO Suh	<i>3 days</i>	<i>Information about financial aids</i>

[Form 7] External contact network

External contact network				
Type	Name	TEL.	Mobile	Communication topics
<i>Customer</i>	<i>OO Park</i>	<i>044-202-0000</i>	<i>010-0000-0000</i>	<ul style="list-style-type: none"> • Delivery schedule • Possibility to meet the delivery date • The occurrence of a confirmed patient among the employees
<i>Supplier</i>	<i>OO Kim</i>	<i>044-202-0000</i>	<i>010-0000-0000</i>	<ul style="list-style-type: none"> • Delivery schedule • Means of transportation • Occurrence of a confirmed case among the supplier's employees
<i>Insurance company</i>	<i>OO Lee</i>	<i>044-202-0000</i>	<i>010-0000-0000</i>	<ul style="list-style-type: none"> • Details of the insurance policies the company has subscribed to • Coverage • Specialty coverage in case of occurrence of an infectious disease
<i>Local government</i>	<i>OO Kang</i>	<i>044-202-0000</i>	<i>010-0000-0000</i>	<ul style="list-style-type: none"> • Status of confirmed cases • Government support programs
<i>Public health center</i>	<i>OO Choi</i>	<i>044-202-0000</i>	<i>010-0000-0000</i>	<ul style="list-style-type: none"> • Instructions regarding disinfection • Reporting of a suspected or confirmed patient case

Revisions to Disinfection Guidelines by the Central Quarantine Response Headquarters

The Central Quarantine Response Headquarters has revised its disinfection guidelines based on feedback from business sites.

Before revision, there was a unilateral recommendation to prohibit the use of business sites on the day following disinfection conducted due to exposure to a case.

However, through this revision, the guidelines have been adjusted so that the business sites can be used based on consultation with the quarantine authority in view of the type of disinfectant and the nature of the business site.

However, disinfecting the site with sodium hypochlorite (eg. Rox) could entail hazards such as odor, and in this case the site requires at least one day for sufficient ventilation. This is why it is recommended that the use of the disinfected business site be prohibited for one day.

When using a disinfectant with a different ingredient (eg. at least 70% alcohol content), the business can consult with the quarantine authority to adjust the time for reopening of the business site according to the situation and considering the nature of the disinfectant and the characteristics of the space subject to disinfection.

* For details on the method of disinfecting, and the type of disinfectant, check "Guidelines on Disinfecting Collective Facilities and Frequently Used Establishments of COVID-19 Cases" on the bulletin board titled "Collective Facilities and Frequently Used Establishments" of the Center for Disease Control's COVID-10 webpage ncov.mohw.go.kr.

<Description on Revisions to the Disinfection Guidelines>

↑) Current	↓) Revision
<ul style="list-style-type: none"> ※ The business site that was exposed to the case shall be subject to disinfection, and prohibited from use until two days later. <p>(1) - The virus dies on the day of disinfection, but the space is prohibited from use for one day in view of potential hazards from exposure to traces of the disinfectant.</p>	<ul style="list-style-type: none"> ※ The nature of each type of disinfectant and the purpose of the space subject to disinfection are taken into account for adjustment of criteria to resume usage. <p>(2) - The virus dies after disinfection, but the time to resume use can be determined in accordance with the nature of each disinfectant. Therefore, there cannot be a single relevant criteria, and each product's precautionary measures must be taken into account.</p> <p>(3) - When sodium hypochlorite (at least 1,000ppm) is used for disinfecting, the space can be used after sufficient ventilation (Use of space is limited for one day after disinfecting, and use must be resumed after providing sufficient ventilation).</p>

* Industries similar to that below can apply these guidelines in a strict manner.

< Guidelines for Semiconductors and Displays >

Nature of Fabs (Semiconductor/display production facilities)

- (Entry conditions) The worker shall wear special clothing in the Smock Room to protect against dust*, and enter the Clean Room equipped with production facilities after anti-dust processing (Air shower, two occasions, 30 seconds each)

* Dust-proof clothing, dust respirator (filter mask), dust-proof gloves, dust-proof shoes, dust-proof cap

- Automation facilities within the fab are controlled by the external control room (dust-proof clothing is not worn).

- (Environment within Fab) The Clean Room maintains a cleanliness level of Class 1~100*. As the processing work is automated, only a few workers are at work, and close contact is limited**

* Class 1: In a space of 1ft (30cm) in width-breadth-height, there is a dust particle the size of 0.5μm (hair=30~120μm)

** Working spaces are at least 99~132m² per person. There is limited contact due to the mobilization of designated human resources per area.

- Inside the Clean Room, air flows from above and downwards at all times. The air passes through a high performance filter*, that functions as a negative pressure room, at least 400 times an hour, promoting internal/external air circulation.

* Air that flows from outside to inside is filtered by a HEPA filter, while the air circulating internally is filtered with a ULPA filter.

Preparatory Measures

- (Alternative Human Resources) Before the occurrence of a confirmed case, alternative human resources must be acquired and a plan for adjustment of shifts must be prepared.

- Currently fabs have four teams and three shifts ⇒ Upon the occurrence of a confirmed case, to compensate for the self-quarantine of working teams in which the case occurred, alternative human resources equivalent to one shift shall be acquired.

- (Response System) Business Continuity Plan and an emergency response system must be provided for each company.

- Establish a Task Force Team, a Response Plan per Scenario, and Self-Quarantine Criteria according to each company's situation, and pursue preemptive measures to prevent the spread of COVID-19.
- **(Protective Gear)** Prepare personal protective gear* of Level D (at least two days' worth) to be worn by personnel of the Control Room when disinfecting. The existing dust-proof clothing is to be worn in the Clean Room.
 - * Personal protective gear of Level D: Full protective clothing + gloves + galoshes + mask(N95) + goggles

□ Plan for continued operation of production facilities

- ① (Occurrence of Suspect Case)** Assess the suspect case and contacts, and instruct self-quarantine.
 - [Self-Quarantine] Self-quarantine of contacts assessed and notified by the health authority
 - In addition, through an independent company survey, assess all close/everyday contacts
 - ⇒ Close contacts must work at home for 14 days, while everyday contacts must wear a mask at work.
 - * (Close contact) Persons that come into contact with the suspect case in office, shift teams, shuttle bus, highly concentrated public facilities
 (Everyday contact) Persons that work in the same building as the suspect case
 - [Protective Gear] Staff shall wear a mask in the Control Room, and the existing dust-proof clothing in the Clean Room.
 - Before confirming that a suspect case is truly infected, persons may work without wearing additional protective gear.
 - [Alternative Human Resources] Establish alternative shift teams and mobilize them taking into account the manpower that requires self-quarantine.
 - * Close contacts shall be withdrawn, and subject to self-quarantine or work according to the measures advised by the health authority.

- ② (Occurrence of a Confirmed Case)** Disinfection shall be conducted for the Control Room and Smock Room, while the Clean Room does not require disinfecting.*

* A separate disinfection procedure is not necessary when taking into account the cleanliness of the production facilities and working environment.

- [Scope of Disinfection] Disinfection is necessary for the Smock Room, Control Room and movement route of the confirmed case other than Clean Room.
 - When disinfecting the Smock Room, please refrain from using disinfectants with chlorine (Cl) ingredients so as not to impact the process. Additionally, the disinfectant must have at least 70% alcohol.

- [Simultaneous Work] Personnel shall continue to work in the Control Room even during the disinfection process, after wearing protective gear.
 - Unlike the Smock Room, the Control Room is difficult to close off. During the disinfection process, personnel working shall wear Level D personal protective gear (as in the case of a nuclear reactor), and must keep wearing it for 24 hours* after disinfecting.
- * Time required for sufficient ventilation, after disinfecting with sodium hypochlorite (Recommendation of the Central Accident Remediation Headquarters)
- When disinfecting, the period the Smock Room is to remain closed shall be discussed and determined in consideration of the disinfectant being used. When closing the Smock Room, an alternative Smock Room shall be used (for Men, Women, Business Partners, etc.).

< Guidelines for Steel, Metal, Glass >

Nature of Production Facilities

- The steel manufacturing industry uses a continuous process for the making of raw materials and products. Therefore, it is feared that the partial suspension of lines could result in great damage.
- Further, factories involving metal smelting, glass melting, etc. require continuous operation to maintain high internal temperature for 24 hours, 365 days.

Preparatory Measures for Continuous Operation

- **(Alternative Human Resources)** Develop a plan to secure alternative human resources and adjust shifts for each process
 - * (eg.) ① A process that allows the mobilization of alternative human resources maintains the existing working method through reallocation of shift teams.
 - ② For processes that do not allow mobilization of alternative human resources, convert the shift system (eg. 4 teams, 3 shifts → 3 teams, 2 shifts).
- **(Response System)** Develop a Business Continuity Plan and emergency response system for each company.
- Establish a Task Force Team, Response Plan per scenario and Self-Quarantine Criteria according to the company's situation. Pursue preemptive response to prevent spread of COVID-19.

* (Eg) Establish a full-time Disease Control Team, implement measures for independent control of core facilities on a regular basis, distribute disinfectants for each department, and operate

a counseling center related to COVID-19 and health within the company.

- **(Protective Gear)** Secure Level D personal protective gear* that is to be worn by personnel during the disinfection process, and provide information and education to workers on how to wear protective equipment.

* (Protective Clothing) Chemical resistant protective clothing, sterile clothing, as well as goggles, dust-proof mask, gas mask, etc.

Plan for continuous operation of production facilities

- (Patient Quarantine) If a suspect/confirmed case occurs, he/she must immediately be quarantined, and his/her team (close contacts), and if necessary, secondary contacts, must be directed to stay away from the workplace.
- (Continuous Operation) Disinfection of facilities, operation room and movement route of the confirmed case → All workers necessary for continuous operations up to 24 hours after disinfection must wear protective gear at work*

* Ventilation by use of blower after quarantine

Target Facilities	Work Plan
Control Room	<ul style="list-style-type: none">· Work simultaneously while the disinfection work is going on (Wear Level D personal protective gear)
Production Facilities (blast furnace, etc.)	<ul style="list-style-type: none">· Disinfect and block access, and if necessary, wear Level D personal protective gear for access

< Guidelines for Petrochemicals >

Features of Production Facilities

- **(Entry Restriction)** Only workers with prior approval shall be allowed to enter*, and the number of entrants is to be minimized.

* In addition, a fever check is to be made in the morning on workers that enter the business site. If body temperature is at least 37.5°C, or there are respiratory symptoms, the worker cannot enter the premises.

- **(Facility Environment)** Factory automation necessitates only a few persons* to be at work. Further, the Control Room for each factory is separated for operation. For processing safety, suspension and resumption of operations shall not be done immediately (at least 3 days are necessary).

* For NCC facilities of the size of 99,000~165,000m², there are about ten workers (4 teams in 3 shifts that work 24 hours).

Preparatory Measures

- (Protective Gear) Each facility is to be fully prepared with protective clothing, goggles, gloves, galoshes, masks.
- (Alternative Human Resources) Upon the occurrence of a confirmed case, establish a plan to adjust shifts, and acquire additional human resources (currently there are 4 teams and 3 shifts).
- (Response System) Arrange for preventive activities (measure body temperature, restrict business trips, disinfect buildings and vehicles) and establish post-crisis measures (acquire alternative human resources, plan ordinary operation).

Plan for Continuous Operation of Production Facilities

- (Initial Response) Distribute protective gear and direct the infected person's team to stay away from work.
 - [Protective Gear] Distribute protective clothing and electric respirators for workers' protection.
 - [Self-Quarantine] Team with a confirmed case is directed to stay away from work, and close contacts are advised to self-quarantine.
- (Normal Operation) Disinfect the site, and arrange for a minimum number of persons dressed in protective clothing to work normally in the Control Room.
 - [Access Restriction and Disinfection] Other than the minimum required number of persons, the area is to be prohibited from access. The entire interior and exterior shall be disinfected.
 - [Working Simultaneously] The minimum required number of persons (about 3) wearing protective clothing shall work in the Control Room while it is being disinfected.

* After disinfection, protective gear shall be worn for at least 24 hours

- [Alternative Human Resources] Work shall be reallocated, with the quarantined team advised to stay away (convert to 3 teams, 2-3 shifts, with use of idle manpower).

* Existing human resources shall either be self-quarantined or continue work, depending on the

measures the health authority advises after their initial withdrawal.

Government Assistance for Companies regarding COVID-19 and
Information on Relevant Organizations

Economic Support: Check the MOEF Emergency Economy Meeting Webpage (www.moef.go.kr/2020/emgncEcnmyMtg.do)

Other Support: Check "Damage Assistance Policy" Bulletin, COVID-19 Webpage (ncov.mohw.go.kr)

Type	Target	Description	Relevant Organization
Quarantine	SMEs damaged by COVID-19, SMEs that manufacture products and provide services related to COVID-19	<Special Guarantee Program> <ul style="list-style-type: none">Provide support of KRW 905 bln.Expand the limit (other than the existing range of support, provide up to KRW 300 mln.)Increase guarantee ratio (85%→95%).Apply guarantee rate of 1.0%, and simplify the audit procedure.	Korea Technology Finance Corporation 1544-1120
	SMEs damaged by COVID-19	<Preferential Guarantee Program> <ul style="list-style-type: none">KRW 300 bln.Preferential guarantee support, increase guarantee ratio (85%→95%)Apply guarantee rate of 1.0%, simplify the audit procedure	Korea Credit Guarantee Fund 1588-6565
Loan	SMEs damaged by COVID-19	<SME Emergency Business Stabilization Fund> <ul style="list-style-type: none">Support of KRW 625 bln.Decrease the lending interest rate (2.65%→2.15%)Increase the support limit (KRW 1 bln→KRW 1.5 bln.)	Small and Medium Business Corporation (no code) 1357
Local Tax	Companies experiencing difficulty due to shutdowns after occurrence of COVID-19 confirmed cases, and visits by quarantined cases and confirmed cases	<ul style="list-style-type: none">Report and extend the payment duration for acquisition tax, local income tax, resident's tax, employee classification (within 6 months, possible to re-extend by another 6 months)Extend the duration for collection and recovery of arrears, possible to re-extend for additional 6 monthsDefer tax investigation, reduce local tax	Department of Local Tax Policy, Ministry of Interior and Safety 044-205-3809 * For details, inquire at the Tax Policy Office of the local municipality
Tariff	Import/export companies experiencing difficulty with supply of raw materials	<ul style="list-style-type: none">Extension of payment date, payment in installments (up to 1 year)Immediate tax refund, deferment of tax investigationOperate a Problem Solving Center	Audit Policy Division, Korea Customs Service 042-481-7863 or (no code) 125
Out Cad	Small and medium franchises that may be subject to damage	<ul style="list-style-type: none">For small and medium franchises (annual revenue of KRW 500 mln. or less) subject to damage, consider provision of marketing support such as interest-free installments, and lowering of lending interest rate for business funds.	SME Finance Department, Financial Services Commission 02-2100-2983
Employer	Businesses that have implemented employment maintenance measures for 3 months from April 1-June 30, 2020 (business shutdown or employee leave), and paid the relevant allowance	<Employment Maintenance Support Fund> <ul style="list-style-type: none">Implement employment maintenance measures, and provide assistance for labor costs that have actually been paid. <p>* Application method: Employment Insurance webpage (www.ei.go.kr)→"Corporate Services" on top→"Employment Stabilization Grant"→"Employment and Maintenance Support Fund"</p>	Civil Affairs Center, Ministry of Labor and Employment (no code) 1350 or Employment Welfare Center governing the relevant business site, Corporate Support Department
	Workers that have taken family care leave after Jan. 20, 2020	<Urgent Support for Family Care Costs> <ul style="list-style-type: none">Support of KRW 50,000 per day, up to 5 days per person <p>* Application method: Ministry of Employment and Labor webpage (www.moel.go.kr)→"Civil Affairs" on top→ search in "Applications"</p>	Civil Affairs Center, Ministry of Labor and Employment (no code) 1350

	<p>Businesses that have provided paid leave to quarantined persons</p>	<p><Support for Paid Leave Costs></p> <ul style="list-style-type: none"> • Support for daily wages per individual (maximum KRW 130,000 per day) <p>※ Not to be paid in duplication with Living Expense Support</p>	<p>Local Branch, National Pension Service 1355</p>
	<p>Companies that have used the flexible working system</p>	<p><Support for Indirect Labor Costs of the Flexible Work System></p> <ul style="list-style-type: none"> • In the case of using the system 1-2 times a week, workers' per capita annual support of KRW 2.6 million in total • In the case of using the system at least 3 times a week, workers' per capita annual support of KRW 5.2 mln 	<p>Local Employment Labor Center, governing relevant business site</p>

< Report of and Inquiries Regarding Difficulties Related to COVID-19 >

Description of Inquiry	Relevant Organization, Contact Info
Reporting on difficulties SMEs experience regarding COVID-19, request for assistance and counseling	SME General Call Center (no code) 1357
Financial difficulties experienced by SMEs and middle market enterprises related to COVID-19	Financial Supervisory Service (no code) 1332
Reporting of difficulties experienced by middle market enterprises, request for assistance and counseling	Report Center for Middle Market Enterprises related to COVID-19 (FOMEK) 02-3275-1954, fomek119@fomek.or.kr * Check www.fomek.or.kr for description of assistance extended to middle market enterprises.
Difficulties in supply of raw materials and components	Response and Support Center for Supply of Raw Materials and Components 02-2100-1572
Companies that are doing business in China	KOTRA COVID-19 Emergency Response Team 1600-7119
Difficulties in exports, finance, funding assistance, cancellation and/or delay of export orders, logistical difficulties in import/export	KITA Support Center for Resolution of Export Difficulties 02-6000-5237

< List of Guidelines Regarding COVID-19 (as of March 2020) >

Name of Guideline	Relevant Organization (Contact Info)	Download Location	
Standard Plan for Business Continuity upon the Occurrence of an Infectious Disease (Version 2)	Department of Industrial Workplace Innovation, MOTIE, (044-203-4221)		MOTIE Webpage (www.motie.go.kr) →Click on pop-up window
Guidelines to Respond to COVID-19 in the Case of Industries Operating 24 Hours	Department of Semiconductor and Display, MOTIE (044-203-4274)		
Response Guidelines for Business Sites to Prevent Occurrence and Spread of COVID-19 (Version 7) * English and Chinese translations available	Department of Industrial Health. Ministry of Employment and Labor (044-202-7748)	Center for Disease Control COVID-19 Webpage (ncov.mohw.go.kr) →News →Announcements	MOEL Webpage (www.moel.go.kr) →News →Announcements
Guidelines for Disinfecting Collective Facilities and Frequently Used Establishments Visited by COVID-19 Cases (Version 3)	Institution Management Team, Central Quarantine Headquarters (043-719-9310)	→Collective Facilities and Frequently Used Establishments	CDC Webpage (www.cdc.go.kr) →Announcements, data →Laws, guidelines, formats →Guidelines
Guidelines for Control of Group Events Related to COVID-19 (Version 2)	Central Accident Management Headquarters,		-
Response Guidelines for Managing Collective Facilities and Frequently Used Establishments to Contain Spread of COVID-19 (Version 3)	Center for Disease Control (044-202-3805)		-
Guidelines for Intensive Management of Business Sites to Prevent COVID-19	Institution Management Team, Central Quarantine Headquarters (044-202-2511)		-
Guidelines to Prevent COVID-19 at Call Centers (Version 2)	Department of Industrial Health. Ministry of Employment and Labor (044-202-7748)	-	MOEL Webpage (www.moel.go.kr) →News →Announcements
Guidelines for Social Distancing (for business sites)			

* Social distancing has been extended to April 19, 2020.

COVID-19: We can fight and win.

Highly Intensive Social Distancing

For 15 days (March 22 - April 5, 2020),

**please refrain from going out and stay at home as much as possible
to prevent COVID-19.**

<Guidelines for People to Stay Safe>

**Stay at home, and delay or cancel all
non-essential get-togethers, group dinners, events, and trips.**

**Refrain from going out,
other than for buying daily necessities, visiting medical agencies, and attending work.**

Adhere to personal hygiene rules, such as washing hands and cough etiquette.

**Do not go to work if you experience fever or respiratory symptoms (cough, throat pain), and
take good rest at home.**

Avoid physical contact such as shaking hands, and maintain a healthy distance of 2m.

Disinfect and ventilate your surrounding environment everyday.

<Guidelines for People at Work>

Wash your hands thoroughly using soap and running water.

Do not visit frequently used establishments, such as dressing rooms and indoor lounges.

Do not sit face-to-face when eating, and maintain a certain distance.

Avoid physical contact such as shaking hands, and maintain a healthy distance of 2m.

Use personal items when you need to use cups and tableware.

Go straight home after work.



#코로나19_우리가 이깁니다

강도 높은 사회적 거리두기

15일간(2020년 3월 22일 ~ 4월 5일까지) 코로나19 예방을 위해
외출을 자제하고 최대한 집안에 머물러주세요

| 국민 행동 지침 |



불필요한 외출, 모임, 외식,
행사, 여행 등은
모두 연기 또는 취소하기



발열 또는 호흡기 증상(기침,
인후통 등) 시 출근하지 않고
집에서 충분히 휴식하기



생필품 구매, 의료기관 방문,
출퇴근을 제외한 **외출 자제하기**



악수 등 신체접촉 피하고
2m 건강거리 두기



손씻기, 기침예절 등
개인위생수칙 준수



**매일 주변 환경을
소독하고 환기시키기**

| 직장에서 개인 행동 지침 |



흐르는 물에 비누로
꼼꼼하게 손씻기



악수 등 신체접촉 피하고
2m 건강거리 두기



탈의실, 실내 휴게실 등
다중이용공간 사용하지 않기



컵·식기 등
개인물품 사용하기



마주보지 않고
일정 거리 두고 식사하기



**출·퇴근 후
바로 집으로 돌아가기**

2020.3.23.