

Guidance for Return to Normal Operations for Workplaces



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Introduction

From an operational perspective, the 2019 Coronavirus Disease (COVID-19) pandemic has resulted in pervasive disruption to business operations and supply chains around the globe. As rates of new COVID-19 cases have levelled overall and begun to decline in some affected countries, various regions, states, and businesses have cautiously shifted their attention toward planning a safe return to pre-pandemic business operations. Businesses must remain flexible in their planning, however, as future resurgence of COVID-19 remains likely. Having an established and robust reopening plan will help employers protect their employees, employees' families, business partners, and communities.

Plans for Returning to Normal Business Operations (RNBO), or continuity plans, are implemented by businesses and governments when operations have been reduced or altered in response to a major event (e.g., a pandemic). A reduction in operations typically occurs in response to an unexpected and unforeseen event that causes a major disruption to workflow, and places workers at risk to injury or illness (NASEM, 2017). For example, the United States Federal Emergency Management Agency (FEMA) National Disaster Recovery Framework is widely used by government and nongovernmental organizations to conduct recovery actions that are resilient and sustainable (FEMA, 2016). While this framework is a valuable resource for business leaders, it offers general guidance that is neither industry nor event specific. Frameworks such as the FEMA National Disaster Recovery Framework are therefore limited in their ability to address some of the unique challenges of the COVID-19 pandemic. The current state of the COVID-19 pandemic introduces unique challenges, such as the potential for future resurgence or outbreaks, testing limitations, lack of or limited availability of vaccines, and unknown behaviors of the SARS-CoV-2 virus that causes COVID-19.

As government leaders at the federal, state, and local level begin to share reopening plans, business leaders need to be informed and empowered to develop and implement successful RNBO strategies. The purpose of this document, then, is to provide business leaders with a general overview of present RNBO guidance, and to help address common issues faced by business leaders during reopening. Businesses can ease their reopening transition by determining the priorities to be use as a foundation for their RNBO plan (See list).

The following are RNBO strategy priorities:

- > Maintain a healthy work environment for all employees
- > Stay informed on local, state, and federal government and industry preparedness plans in areas relevant to business operations
- > Communicate health and safety information clearly and regularly to employees, partners, clients, and local communities
- > Develop an internal planning group consisting of leaders from multiple departments
- > Identify essential functions and employees
- > Ensure proper training related to job functions
- > Ensure that operations remain efficient without compromising worker safety and health during reopening

Current Guidance

UNITED STATES

The United States, through its Department of Health and Human Services, and specifically the Centers for Disease Control and Prevention (CDC), has provided federal-level guidelines for reopening businesses during the COVID-19 pandemic. On April 16, 2020, the White House, in conjunction with the CDC, released the "Opening Up America Again" guidance document. The guide outlines a high-level, phased approach that states

can follow to re-open economies, including businesses and events. The guideline provides three phases that require certain local health parameters, preparation activities, and responsibilities to be satisfied prior to advancing.

State-level guidance has also been enacted via Governors' offices and State Health Departments across the U.S. The National Governor's Association (NGA) has released a 'Roadmap to Recovery' guide which details state-level suggestions for governors to consider. Such approaches recommend regional reopening only when the incidence of new cases is reduced along with an established and proper public health infrastructure. Plans for reopening economies vary across states with a range of timelines and criteria. Many states are transitioning from stay-at-home order to "safer-at-home" orders with relaxed restrictions and limited opening of certain businesses. Examples of controlled opening policies enacted in some states include:

- > Only 25% capacity in restaurants with spaced seating
- > Beauty salon appointments by reservation only
- > Resuming performance of elective surgeries
- > Churches can open with social distancing

For businesses with locations across the U.S., the sheer number of timelines, guides, restrictions, and criteria for reopening can be overwhelming. Businesses need to take the adequate protective measures in a multi-layered approach and to follow the local and state requirements for reopening. Creating an RNBO plan can provide a road map for companies to quickly adjust control measures based on lowered or elevated health risks.

INTERNATIONAL

Similar to the United States' response, other countries have begun to cautiously reopen and return to normal based on the impact severity of COVID-19. As an example, the European Union is examining three criteria: epidemiological criteria; sufficient health system capacity; and the appropriate monitoring capacity to inform when economies can resume, and at what capacity. As countries chart these waters together, lessons are being learned about what response measures seem to work and where weakness may arise. In Singapore, authorities were forced to adjust plans after the country saw a sharp resurgence in cases even after the epidemic was considered "under control" (Beaubien, 2020). Each country thus faces unique challenges, and requires a keen evaluation of all factors that increase potential risk. Companies, especially ones with a global footprint, should factor in various countries' plans, especially regarding travel restrictions, quarantines, and access to health care.

INDUSTRY AND ORGANIZATIONS

In response to the need for specific industry guidance, the CDC and the Occupational Safety and Health Administration (OSHA) have issued a variety of guides for higher-risk occupations, including, but not limited, to:

- > Health Care Workers
- > Home Healthcare Workers
- > Critical Infrastructure Workers
- > Meat and Poultry Processors
- > Transportation and Delivery Workers



Many trade associations and other industry groups in the U.S. have quickly provided guidance and recommendations for businesses returning to work. The Committee to Protect Journalists, for example, has created an online resource for health and safety precautions for journalists covering COVID-19 across the globe. In addition to CDC, OSHA, and trade organizations, professional health and safety associations such as the American Industrial Hygiene Association have also issued guidance for a variety of workplaces, such as:

- > Retail Businesses
- > Taxis and Rideshare Services
- > Hair and Nail Salons
- > General Office
- > Construction
- > Gyms and Fitness Centers
- > Restaurants
- > At-home Services

While state and federal guidance and policies are a great starting point for RNBO guidance, strategies developed for specific industries allow for companies to help identify the unique issues that may arise for specific types of operations. Employers and businesses should therefore not only reference state and federal guidance, but also seek industry specific recommendations.



A wide variety of RNBO plans and guides based on various resources and epidemiological indicators are publicly available. Taking a page from historical responses to global events such as natural disasters and past outbreaks can provide insight and a starting point from which companies can work. Past and current reopening guidance from other geographical locations can provide valuable understanding and insight into the reopening process. Because of differences in culture, infrastructure, operations, and resources, however, using the same plan across all areas

can prove difficult. Starting with already developed plans as a guide, then, to ensure all aspects are incorporated in the new plan, is useful, but these plans should not be solely relied on, as unchecked copying of them may not be ideal or appropriate in other geographic areas.

STAGES OF RESPONSE, TRANSITIONS, AND TRIGGERS

Currently, many companies are operating with a Pandemic Response Plan or Infection Control Plan in place. Since the effectiveness of these plans can be influenced by uncontrolled risks outside of a facility, (e.g., community transmission and spread), developing a framework that outlines how a “step down” from a heightened state of response back to normal operations can occur in a timely and controlled manner becomes important. As defined above, this transition plan is commonly referred to as an RNBO Plan, or Continuity Plan. An RNBO Plan also allows for a quick, controlled “step up” when the situation calls for more protective controls (as discussed further below). The total number of stages an RNBO Plan needs can vary from company to company, but a minimum of three stages is recommended. An example of a three-stage set-up would be:

Stage 3 – Full Infection Control Plan or Pandemic Plan Response. This stage is the maximum multi-layered protective measures for a facility or a worksite.

Stage 2 – Partial Pandemic Plan or Infection Control Response. This stage has heightened multi-layered protective measures, but is less restrictive than Stage 3. It allows for the relaxation of certain measures in a controlled manner.

Stage 1 – Revised Normal Operations. This stage is the full return to normal operations for a facility or worksite, but with preparations in place to rapidly move back to Stage 2 or Stage 3 if needed.

The stages can be considered three “mini-plans” that address the same risk categories, but with control variations. As the risk decreases, for example, so does the stage and the need for its respective enhanced control measures. Any reduction in controls should be done only when there are multiple layers of controls in place. Reducing controls when only a single control layer exists creates a risk for a single point of failure, and should be avoided. Sometimes reducing one control measure (e.g., reducing PPE) may require increasing other measures (e.g., more frequent sanitation; more robust wellness checks; etc.). Categories of controls can be repeated at each stage, with variations in control requirements. Examples of categories include:

- > Responsible Parties and Reporting Requirements
- > Communications
- > Worker Hygiene and Behavior
 - Personal Protective Equipment (PPE)
 - Training
 - Worker Density and Scheduling
- > Facility Operations
 - Hours of Operation
 - Disinfection Measures
 - Guest and Visitor Restrictions
- > Administrative Controls
 - Common Area Usage
 - Allowable Number of People in a Meeting
 - Flexible Work-From-Home Policy
- > Product Handling
- > Public Interactions



Careful attention should be paid when deciding when and how to transition between stages. Both internal and external factors should be considered and used as guides to determine when and how to transition in a controlled manner. Additionally, trigger points on when and how to shift in between phases should be considered. Examples of possible factors are:

- > Local and State orders and restrictions (e.g., stay-at-home; shelter-in-place)
 - Above all, follow government public health guidance, which includes, but is not limited to:
 - State guidance: State Health Department; Governor’s Office
 - Local guidance: Local Health Department; Regional Health Department; Mayoral Declaration
 - These restrictions are heavily influenced by health department data, trends, and analysis
- > Local COVID-19 cases
 - While most governmental orders and restrictions will examine these factors, be sure to consider:
 - Case incidence in the regions or communities surrounding the business
 - Local and state testing capabilities

Employers must have well-defined stages for scaling down protections, as well as re-implementing them if necessary in advance of implementing a RNBO plan. These stages incorporate aspects such as PPE, communications, administrative controls, disinfection procedures, case management, and other controls. As companies transition from one stage to the next in response to evolving COVID-19 conditions, these aspects are designed to meet or exceed the requirements of the response needed for that stage. Simply having stages defined, however, is not enough; companies must also understand when to transition to the appropriate stage. In addition to defining stages in advance, then, criteria or triggers for transitioning to each of the next stages (and back, if necessary) should therefore also be developed.

FACILITY-SPECIFIC CONSIDERATIONS

Facility management plays an important role in helping protect large portions of working America as workers return from a work-from-home or furloughed state into physical office spaces and facilities. As facilities reopen, management should set aside time to prepare the workplace not only for occupancy comfort, but also for the “new” normal while COVID-19 may still pose a potential health threat. In addition, if facilities have remained dormant and not in operation since the start of the pandemic, facility management is one of the most immediate concerns as a business reopens. Important aspects that facility management

should consider when re-opening workplaces that have remained inactive or non-operational include, but are not limited to, Indoor Environmental Quality (IEQ); Heating, Ventilation, and Air Conditioning (HVAC); rodent and pest control; and Legionella.

INDOOR ENVIRONMENTAL QUALITY

Businesses and facilities that have experienced full or partial shutdowns should consider the quality of the environment to which workers may be returning. Employers should inspect the workplace prior to occupancy in order to properly address any issues. Issues that can arise from dormant/unoccupied buildings can include:

- > Water damage
- > Propagation of Legionella around stagnant water
- > Infestation of rodents and pests
- > Carpet and furnishing off-gassing
- > Nuisance dust
- > Mold
- > Odors

These are just a few examples of IEQ issues that could arise from dormant/unoccupied buildings. Employers and managers should inspect the facility and facility grounds thoroughly before reopening. If IEQ issues are found that present a hazard, facilities management or a hazard/safety consultant should be contacted.

HEATING, VENTILATION, AND AIR CONDITIONING

Heating, ventilation, and air conditioning (HVAC) is an important aspect to consider when reopening the workplace because of its effect on several factors that can impact worker health. Ideally, the HVAC system in a workplace should have been adjusted to account for an inactive facility/operation prior to closing the facility. If a workplace has remained dormant or inactive during the pandemic, this dormancy may lead to harmful and uncomfortable IEQ issues directly related to the HVAC. In addition, if Legionella has propagated in stagnant water and plumbing (as described below), it could become aerosolized and spread throughout the workplace via the ventilation system. Regarding the role HVAC plays in managing risk of COVID-19 transmission in the workplace, specified HVAC settings are recommended during the pandemic to help reduce potential transmission of SARS-CoV-2 via ventilation.

Professionals specializing in HVAC systems play an important role in protecting building occupants by optimizing ventilation systems to help reduce indoor spread of infectious aerosols with HVAC and LEV systems. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has provided guidance to potentially reduce the risk of transmitting infectious diseases via aerosols. Regarding HVAC systems for non-healthcare facilities, ASHRAE recommends the following practices:

- > Increase outdoor air ventilation (disable demand-controlled ventilation and open outdoor air dampers to 100% as indoor and outdoor conditions permit)
- > Improve central air and other HVAC filtration to MERV-13 (ASHRAE, 2017) or the highest level achievable
- > Keep systems running longer hours (24/7 if possible)
- > Add portable room air cleaners with HEPA or high-MERV filters with due consideration to the clean air delivery rate (AHAM, 2015)

- > Add duct- or air-handling-unit-mounted, upper room, and/or portable ultraviolet germicidal irradiation devices in connection to in-room fans in high-density spaces, such as waiting rooms, prisons, and shelters
- > Maintain temperature and humidity as applicable to the infectious aerosol of concern
- > Bypass energy recovery ventilation systems that leak potentially contaminated exhaust air back into the outdoor air supply

Employers and managers should consult facility management or professional HVAC consultants to ensure the ventilation system is not only operating correctly, but is also optimized to address IEQ and COVID-19 concerns. This consultation should occur prior to workers reoccupying the workplace.

RODENTS AND PESTS

Workplace dormancy created by quarantine measures can mean fewer deterrents keeping rodents and other pests from venturing into and/or nesting in the workplace. If workplaces did not take the appropriate actions to prevent the infiltration of rodents and other pests prior to operational shutdown, an infestation may occur upon employee return. The presence of rodents and other pests seeking food, water, and shelter in the workplace can lead to IEQ issues, along with other possible health hazards caused by pathogens in rodent/pest feces. Excrement from rodents and pests can harbor pathogenic microorganisms that may produce foul and possibly irritating odors, or, more significantly, could lead to worker infections. Additionally, rodents and pests can cause structural damage, which could compromise the integrity of the workplace and operations. The employer must therefore thoroughly inspect the facility for signs of rodents and pests before allowing worker back into the workplace.

LEGIONELLA

Water lines that have idled in dormant or non-occupied workspaces during a shut-down can promote the growth of Legionella bacteria. Legionella can cause legionellosis in humans if inhaled from aerosolized sources such as cooling tower water, decorative water structures, and air conditioning units. Legionellosis, if not treated properly, can lead to severe illness or death. The CDC has provided guidance on reopening a business with consideration to a building's water system in order to reduce the risk of Legionella transmission. Recommendations include:

- > Ensuring the water heater is maintained with the correct temperature
- > Flushing the water system at all points of use with the maximum hot water temperature
- > Cleaning and treating decorative fountains or water structures
- > Checking with local authorities and water utilities for additional guidance
- > Possibly contacting an Industrial Hygienist for health and safety support and testing

Careful consideration should be given to ensure that this potential health hazard is addressed appropriately, including training, PPE, and water system expertise. Legionella is an on-going health concern in the U.S.; however, this concern is greatly increased by dormant and non-operational buildings. Employers and facility managers should evaluate their workspaces to ensure Legionella is not present prior to re-occupation.

Defining Updated Normal Operations

Companies should anticipate updating their definition of “normal operations,” which will require a new perspective on infection control and mitigation techniques in order to protect employees, property, products, and the public. Companies should, at a minimum, consider reviewing their current response and business continuity plans to ensure they take into consideration their established priorities and future infection control and mitigation needs. These plans should incorporate employer and facility-specific operations. In addition, robust disinfection plans should remain in place to adequately address infection control and mitigation, even when local new cases consistently decline and approach zero. An updated normal operational framework will thus be established. While defining a company’s or local facility’s updated normal operations, companies are encouraged to test infection control plans and run tabletop drills in order to ensure such plans remain effective. While the RNBO plan may be unique to COVID-19, the plan’s foundations can be used and adapted to other crises. All preparations should be approached with the goal of ensuring the company can respond to a crisis at the earliest possible stage, and can promptly implement appropriate and effective worker protection plans.

Conclusions

As companies prepare to reopen, understanding all of the fundamental aspects of an RNBO plan becomes exceedingly important. When available, using previously designed plans as a starting point can be helpful. In addition, employers should reference RNBO plans already drafted by U.S. state and federal government agencies, international agencies, and/or other industry groups and public health organizations. RNBO plans should incorporate stages, transitions, triggers, and facility-specific considerations in order to ensure that operations have the flexibility and capacity to efficiently transition from a full response to the COVID-19 pandemic to updated normal operations without major disruption, and without sacrificing worker safety and health. Plans should also explicitly state how precautions will be reinstated should a resurgence of COVID-19 occur.

Resources

The U.S. White House has published a guideline for phased reopening for the nation:

<https://www.whitehouse.gov/openingamerica/>

The National Governors Association has published a report to aid governors in developing reopening strategies for states:

<https://www.nga.org/center/publications/health/roadmap-to-recovery/>

The CDC has published guidance for building water systems during the COVID-19 pandemic:

<https://www.cdc.gov/coronavirus/2019-ncov/php/building-water-system.html>

AIHA has published multiple industry specific guidance documents to aid employers during reopening:

<https://www.backtoworksafely.org/>

The European Union has developed a roadmap to lifting coronavirus containment measures:

https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/european-roadmap-lifting-coronavirus-containment-measures_en

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Cardno ChemRisk is a scientific consulting firm that specializes in helping clients characterize and respond to occupational, environmental, and community health risks associated with complex exposures involving chemicals and biological and pharmaceutical agents. Our professional staff of 100 scientists – including epidemiologists, engineers, industrial hygienists, microbiologists, toxicologists, and statistical analysts – serve commercial, government, legal, and policy clients from 20 offices across the United States.



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