

# **Appendix B**

## **Guidelines for Developing a NASA Center Operations Continuity Plan**

Addendum to NASA Center Emergency Preparedness Plan  
(NPR 8715.2)

**D R A F T**

The potential for a pandemic prompted NASA to require each Center and component facility to have procedures in place to prepare for this possibility. Centers could be faced with significant staff shortages. Planning ahead to ensure each Center has the capacity to continue operations is essential.

The general guidelines in this Appendix will help to identify the following elements for each Center Operations Continuity Plan (CCP):

- essential Center operations and functions,
- required Center staffing and skill sets needed to maintain essential operations and functions,
- training requirements for the identified staff,
- ensuring the mental and physical health of all employees left on Center, including occupational health (OH) personnel and first responders, and
- opportunities for reallocation of staff to fill vacant positions due to staff shortages.

To maintain essential operations during a pandemic, refer to the following example scenarios:

- Worst case (Scenario 1)
  - Custodial care of Center only
  - Criteria: Declaration of National State of Emergency including quarantine
  - Quarantine declaration by local or state officials
- Limited Operations (Scenario 2)
  - Support of critical mission elements
  - Support facilities
  - Criteria: Declaration of National State of Emergency including quarantine
  - Quarantine declaration by local or state officials
- Reduced Operations (Scenario 3)
  - Business as usual but scaled down
  - 30 to 50% staff shortage

The Process of developing a NASA CCP includes the following:

1. Appoint one senior Center manager and one expert individual to oversee the process.
2. Establish a Working Group to:
  - Identify essential services/functions
  - Identify required skill sets and opportunities for staff reallocation
  - Identify any relevant issues and implications for implementation of the CCP and under which circumstances or emergencies the CCP will be activated and by whom
  - Coordinate with Center Emergency Management and review all associated

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- Review the CCP with Center senior staff for consultation and approval
- Coordinate with NASA HQ Emergency Management
- Coordinate with local authorities (e.g., health department, hospitals, fire department, emergency response/management agencies)
- Test CCP effectiveness at least once a year via a simulation drill and update as required

### **Suggested steps for completing a NASA CCP.**

#### **STEP 1: Designate a Center Management Representative**

The key to a viable CCP is obtaining management support and commitment. The first step in preparing the CCP is identifying a senior manager to oversee, support and direct the Plan's development. This individual will also provide a valuable review forum as work proceeds. Documentation throughout the process is recommended.

#### **STEP 2: Establish a Working Group**

The Working Group should be comprised of representatives from disciplines across the Center and also include an expert to serve as the Chair. This will be responsible for developing the CCP. Working Group participants should be able to identify essential operations and functions of their organizations and understand the implications resulting from delays or disruptions.

Considered the following individuals for the Working Group membership:

- Representatives from each organization who are able to identify the resources, issues and solutions.
- Representatives possessing a clear understanding of the reporting structure and decision-making process within their respective organizations.

#### **STEP 3: Identify Essential Operations and Functions**

The objective of the planning process is to determine how the Center shall maintain essential operations//functions in the event of significant staff shortages. Essential service and function are defined as:

- Operation and/or function, which if not delivered, creates an impact on the health and safety of individuals.
- Operation and/or function, which if not performed within a specified time period, may lead to the failure of an organizational unit.

At each NASA Centers there are essential operations and functions that must be performed to satisfy regulatory requirements. Depending on the nature of the operation or function, the impact may be immediate or occur over time.

Experts suggest that during a pandemic, organizations may experience staff absenteeism rates of up to 35-50% for extended periods of time. This figure includes an approximate 15% absenteeism for people who may be required to stay home to care for ill family members. In a pandemic, Centers may be forced to modify, reduce, or even eliminate specific operations and functions.

The following may help to identify essential operations and functions:

1. Identify all the operations and functions performed by the Center and divide them into three categories:
  - a. Priority A – Can not be suspended - Essential
  - b. Priority B - Can be suspended for a short period of time – define a time frame with senior management agreement
  - c. Priority C - Can be suspended for an extended period of time – define a time frame with senior management agreement
2. Identify any operations that may be conducted by other Centers, via telecommuting, or by external sources

#### **STEP 4: Identify Required Skill Sets and Staff Allocation**

Identify the minimum number of staff and necessary skills required to perform and maintain essential operations and functions. Chart 1 of this Appendix can be used to identify staff skills and allocating responsibilities.

#### **STEP 5: Identify Any Relevant Issues for Activation of the Plan**

Identify any issues that may result from, or be created through, operations/function reduction, modification, or elimination. Each should be discussed with relevant solutions documented, including:

- Has the notification system to activate/terminate the CCP been documented?
- Who has the decision-making authority?
- Who are their alternates?
- Has the process for decision-making been reviewed and documented?

#### **STEP 6: Additional Plan Elements**

There are additional Human Resource elements to consider, including:

- Has there been discussion with key external entities regarding their pandemic readiness plans for business continuity?
- Have other Center plans been developed for potential work alternatives such as teleconferencing telecommuting, and an alternate work sites for key people at risk?
- How will the health of the staff that remain on site be monitored?
- Will cross training be required?

- Do re-deployed staff require any security checks or special clearance?
- Are single incumbent positions, security codes, access and passwords of concern?
- Are there staff from other organizations within the Center that can be re-allocated to critical/essential positions?
- Are there issues related to collective agreement/unions?
- Is advance approval required to use staff that may not possess the necessary certifications, license, etc.?
- What are the implications pertaining to due diligence, liability (legal/civil), public image and confidence?
- Is there an existing communication strategy with internal and external entities in accordance with the center Emergency Preparedness Plan?

### **STEP 7: Testing the Plan**

Once the CCP is complete, circulate for information and training purposes within the Center. As with any other plans, the CCP will require, at a minimum, an annual review to incorporate any necessary revisions. Conducting an emergency simulation to test the CCP should be done at least annually. The exercise will help Center employees understand the CCP, how and when it is activated, who is responsible for what, and how it fits with the Center's strategy to deal with an emergency.

### **STEP 8: Plan Checklist**

Chart 2, Center Operations Continuity Plan Checklist is included with this Appendix to assist each Center in completing their CCP. This is not a complete checklist and serves only as a guideline for developing key elements of the Plan.



## Chart 2- Center Operations Continuity Plan Checklist

ROLES AND RESPONSIBILITIES	ACTION ADDRESSED IN PLAN? <input checked="" type="checkbox"/>	PERSON(S) RESPONSIBLE FOR ACTION/DECISION MAKING
<b>Planning</b>		
Person(s) responsible for activating the Continuity Plan and the designee's alternate		
Decision making process for escalation, notification, activation, and termination of the Continuity Plan		
Communication strategy for notifying employees, NASA management and NASA HQ of the decision to implement any section of the Continuity Plan		
Identification of internal and external resources to prepare and review the Continuity Plan <ul style="list-style-type: none"> <li>• NASA senior management</li> <li>• Other local/state/federal government agencies</li> <li>• Legal counsel</li> <li>• Contractors</li> <li>• Labor Unions and bargaining agents</li> </ul>		
Clearly defined roles of the various stakeholders		
Integration of the Plan with Center/Agency Emergency Management Plan		
<b>Testing of the Plan</b>		
How Plan will be tested		
How communication systems will be tested		

ROLES AND RESPONSIBILITIES	ACTION ADDRESSED IN PLAN? <input checked="" type="checkbox"/>	PERSON(S) RESPONSIBLE FOR ACTION/DECISION MAKING
Identification of mechanism for regular reporting to senior staff/agency during a pandemic		
Contact list of all internal and external agencies and stakeholders		
Contact list of all senior staff within Center/HQ		
Alternate forms of transportation to work available if carpooling/public transportation is impacted during a pandemic		
Support services for workers (e.g., transportation, day-care, meals and grief counseling) included in plan		
Determine whether staff could reside at the work location or alternative work location for some period of time		
List of skills and professional competencies of staff that are transferable to other Center organizations		
Site-specific notification protocol for office closures and contacts for senior staff		
<b>Surveillance/Attendance</b>		
Responsible person for collecting/managing information about staff shortage and his/her alternate		
Mechanism to monitor and report increasing staff shortages due to illness to Occupational Health Office		
Requirement to consult with the Center Medical Officer prior to any major communication strategy about reducing service delivery due to staff shortage relating to influenza		
<b>Delivery of Essential Services</b>		
Designee and alternate for signing authority for expenditures during an emergency		

ROLES AND RESPONSIBILITIES	ACTION ADDRESSED IN PLAN? <input checked="" type="checkbox"/>	PERSON(S) RESPONSIBLE FOR ACTION/DECISION MAKING
Clearly stated policies and procedures that cover signing authority and acquisitions		
Identification of alternative service providers assist with maintaining Center's essential operations/functions and duties they will have and additional training they will require		
Inventory for specialized equipment/facilities that may be needed during a pandemic		
A mechanism that will ensure additional equipment (e.g., pagers, cell phones, refrigerators) can be obtained with minimum delay		
Designee and alternate with authority for ordering repair/replacement equipment		
<b>Materials and Supplies</b>		
Currently equipped with all necessary supplies for regular day-to-day functions		
Contact lists for all your suppliers and alternate suppliers		
Access available to inventory (including serial numbers) of all computer equipment, printers, fax machines, photocopy machines in case repairs are needed		
Contact lists for all equipment repair persons		
Identification of who authorizes repairs and supply/ equipment orders and identification of other employees who can take over this responsibility in the event of an emergency		
Person responsible for procurement matters (e.g., ordering resources and/or equipment) during an emergency episode		
<b>Training/Orientation</b>		

ROLES AND RESPONSIBILITIES	ACTION ADDRESSED IN PLAN? <input checked="" type="checkbox"/>	PERSON(S) RESPONSIBLE FOR ACTION/DECISION MAKING
Training needs pertaining to Plan		
Orientation/education arranged for Center employees to raise awareness about a pandemic		
Center employee awareness of basic infection control guidelines to prevent the transmission of influenza		
<b>Human Resources</b>		
Inventory of skills in the event that people are required to perform duties/functions in other Center organizations to maintain essential operations/functions		
Current list of internal staff with telephone numbers and someone assigned responsibility to ensure that it remains current		
Current list of recently retired staff with telephone numbers who may be contacted in the event of extreme staff shortages		
Plan activation participants have access to a list of all fellow participant employees and relevant stakeholders		
Copy of the Safety and Health manual on site in each Center organization office		
Designee and alternate in charge of communicating to Center employees and within each organization?		
Designees and alternates to represent the Center on community emergency response team(s), if requested to participate		
Designees and alternates responsible for payment issues related to overtime and/or additional salary issues		
Roles/ responsibilities that external contract workers and volunteers could fill during staff shortages		

ROLES AND RESPONSIBILITIES	ACTION ADDRESSED IN PLAN? <input checked="" type="checkbox"/>	PERSON(S) RESPONSIBLE FOR ACTION/DECISION MAKING
Designee and alternate with authority to hire contract/ temporary workers and to take on volunteers		
System/staff to report absence due to illness and other reasons accessible on a daily basis		
<b>Records and Record Keeping</b>		
Record keeping procedures for items such as: <ul style="list-style-type: none"> <li>• Staff absences</li> <li>• Vacation</li> <li>• Complaints and issues</li> </ul>		
A plan to record significant decisions that were made during a pandemic flu/emergency		
Regular reports to management if required		
<b>Communication</b>		
Designee and alternate with primary responsibility for communicating with the public/contractors/staff		
Designees and alternates with sole access to incoming information (e.g., business information, incident reports, complaints)		
A central inventory of passwords to office equipment and electronic files and someone responsible for maintaining the inventory?		
IT expert alternate if computer problems arise		
Communication strategy for staff to communicate with each other during office hours and after office hours (include alternate form of communication they can rely on, e.g., cell phones, pagers)		
Security contacts and alternates in case there is a problem with physical access to Center/offices at the Center		
Identification of critical items needed or delivered that you will need alternative arrangements for in case mail delivery is interrupted/delayed		

ROLES AND RESPONSIBILITIES	ACTION ADDRESSED IN PLAN? <input checked="" type="checkbox"/>	PERSON(S) RESPONSIBLE FOR ACTION/DECISION MAKING
Method for sending out time-sensitive letters or documents and a back-up system for this process		
Receipt and delivery process for courier packages		
If needed, process developed for sending out announcements and news releases to the public or employees through the media. Process established for consulting with the Center Occupational Health Office prior to any release of information		
Method available for employees and the public to access a website or telephone number to get updates on news about the Center's status		
<b>Recovery</b>		
Meeting to discuss immediate lessons learned		
Designee for notifying HQ, employees, contractors and stakeholders regarding reinstating services and finally return to full service		
Process for evaluating Center's local response		
Identification of factors that should be examined as part of the evaluation		
Provision of counseling needs for staff, if needed		