United Nations
Archives and Records Management Section

Disaster Preparedness and Response Recommendations
RFP-248

Conducted by
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ARCHIVES AND RECORDS MANAGEMENT SECTION

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Date of visit:	March 11-12, 2002
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I. INTRODUCTION

A. Preamble

I would like to thank all the staff members interviewed for their hospitality, helpfulness, and cooperation, given throughout the visit. Special thanks goes to Bridget Sisk for assisting me with meeting arrangements; and Steven Tortora for being available at all times to answer questions, and accompany me to and from the Manhattan and Long Island Facilities.

B. Purpose of the Report

This report has been prepared to assist the United Nations Archives and Records Management Section (ARMS) in developing a disaster preparedness and response plan for the archival collection. This report will outline identified vulnerabilities and risks to the collection, recommend mitigation strategies, and provide response preparation tasks.

The Supplementary Materials will include samples of disaster planning elements and salvage information to serve as models for the ARMS staff to tailor the information for their situation. Photocopies and reprints of published articles will provide additional detailed information about selected topics. The Suppliers Lists will assist the staff in finding suitable equipment and vendors of supplies, as well as service providers.

C. Value of Disaster Planning

> As stated by the Heritage Emergency National Task Force: "In order to limit loss due to emergencies, it is essential that the stewards of cultural resources take steps to be prepared, mitigate possible risks, and develop effective plans for response and recovery."

Collections in our cultural institutions are at risk for damage and loss. The tragic events of September 11, 2001 have raised our consciousness about the perils of terrorism. To respond to the recent threats of terrorist acts, many institutions are rethinking their vulnerabilities and heightening security measures. In addition to large-scale emergencies, collections are more often in danger due to roof and pipe leaks, pest infestation, mold blooms, theft, and fire. During construction or the updating of systems, the risks to the collections increase dramatically through system failures, burst pipes, fire hazards, security breakdowns, and accumulation of dust and dirt. Changing weather patterns have increased the risks for tornadoes, ice storms, and flooding. Preparedness is essential for quick response and successful recovery of records from a disaster.

The Archives and Records Management Section (ARMS) must have a written disaster preparedness and response plan for its collections. The tolerance level for loss of any of the records held by United Nation's Archives and Records Management Section is zero. Unfortunately, the likelihood of a disaster happening is never reduced to zero. The collections date from 1893 (UN Predecessor Bodies) to the present. As a catalyst for action on major issues of the world community, the history of the United Nations contained in the UN Archives details efforts "to maintain international peace and security, develop friendly relations among nations, and promote social progress, better living standards and human rights." It is imperative that these internationally significant records of the United Nations be protected from any damage or loss and preserved for use by UN staff, historians, and scholars. With the United Nations Secretariat's support and leadership for maintaining a long-term disaster preparedness and response program, the threat of loss to the irreplaceable records housed in the UN Archives will he lessened. The records will remain available for future generations to use for research into the United Nation's role in shaping world history.

Being prepared for an emergency is the responsibility of the ARMS staff as part of their commitment to the stewardship of the UN records. Every ARMS staff member plays a significant role in knowing the response plans and keeping a Vigilant approach to mitigating potential emergencies. With an active and viable disaster preparedness and response plan in place, the ARMS staff can fulfill their mission to "be responsible for establishing policy and procedures for records and files management throughout the Secretariat. These include preservation and servicing of archival records of the United Nations, both paper-based as well as electronic, that should be preserved because of their administrative, legal, historical, or other value as evidence of the official business of the United Nations."

The preparation of a plan has several benefits including: identification of areas of risk and hazards; establishment of procedures and systems to mitigate potential risks; determination of collection priorities: and development of procedures for quick response to limit damage to collections. Without a plan, recovery from a small or large disaster will be more costly in terms of collection loss, treatment for collections, cleanup cost, and staff time. Preparation, mitigation, and quick and appropriate response can save collections and money.

ARMS staff should be commended for taking a leadership role by developing a disaster preparedness and response plan.

D. Disaster Planning Process

Disaster planning and response is an activity that is not completed in isolation. The planning requires the assistance of all of the ARMS staff as well as cooperation with UN Security and Safety Service, UN Facilities Management Division, and both Building Managers. Plans need to be developed in coordination with the Emergency Command Center created as a result of the events of September 11, 2001. A successful plan requires institutional commitment, teamwork, perseverance, and adequate resources.

As the initial step, the Archives and Records Management Section should establish a Disaster Planning Committee that will spearhead and be responsible for completing a disaster preparedness and response plan.

An essential next step in the disaster planning process is to conduct a **risk assessment.** This assessment should determine the varying intensities each risk might pose for the archival records. Risks may range from minor leaks affecting one section of shelving to a potential for a major tire that might cause significant damage to the collection and the building. As part **of** the assessment, a determination should be made as to the likelihood of a particular type of disaster and what the impact of the occurrence would be for the records, staff, and financial resources.

Once the risks **are** identified, **strategies** to **mitigate** the risks can be developed. Mitigation is preparedness planning that is directed toward eliminating or reducing the probability of the occurrence of a disaster-producing; event or reducing the effects of those events that are unavoidable. Mitigation strategies may range from increasing security lighting in a hallway to installation of a centrally monitored fire suppression system. Many mitigation **efforts** involve systematic and ongoing facilities maintenance programs, environmental monitoring, and procedures for use of records by researchers.

Unfortunately, the likelihood of a disaster happening is never totally eliminated. After steps to mitigate potential risks have been undertaken, an effective **plan to respond** to **a** disaster can be developed. The response planning tasks can focus on the probable events and prepare for those that cannot be mitigated.

II. RISK ASSESSMENT

This section contains general observations concerning the potential risks faced by the Archives and Kecords Management Section of the United Nations. The Crime Prevention Section of the New York City Police Department recently conducted a survey of the security and fire protection systems. Their report details specific recommendations for mitigation of security risks.

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It is recommended that the Archives and Records Management Section (ARMS) complete an assessment of the risks and vulnerabilities facing the UN Archives.

A. Collection

General Information

Archival materials arc highly susceptible to damage from fire, water, pest infestation, and mold.

If paper materials get wet: they tend to swell. Soluble dyes and adhesives soften or dissolve. Additional damage occurs when materials dry, including shrinkage (resulting in paper cockling), bleeding of inks, and formation of tidelines. Coated materials stick together as they dry and form a block rendering the materials unsalvageahle.

Pests eat paste, glues, gelatin sizing, leather, and **book** cloth. Paper materials can be eaten entirely, shredded, or left with holes. Pest droppings are corrosive and leave permanent stains.

Mold damage causes staining and weakening of paper fibers. Stains will disfigure materials which conservation treatment can only slightly reduce. Mold feeds on the cellulose, starch adhesives, sizing: and gelatin.

Since individual pieces of the collection are portable, there is a risk for theft from research rooms. The subject matter contained in the UN Archives may also pose a risk for arson, vandalism, and terrorism. Fire **can** consume paper and magnetic media. If subjected to a strong magnetic field, the information on the magnetic media can be erased.

1. Most of the collection is housed in archival boxes that serve as a first line of defense from disaster. The boxes protect the collection from some water damage, dirt, and light exposure.

2. The collection is housed on appropriate new storage furniture, so the furniture is as safe as possible.

3. Without having established salvage priorities, ARMS staff will have difficulty in making decisions about salvage priority at the time of an emergency. There is a risk for idiosyncratic salvage selections.

4. Leaks from overhead pipes are a significant risk for the collections, especially since there have been past incidents of leaks.

5. The **tape** collection is at risk €or water damage because they are not stored at least 6" above the floor. There has been a leak near tape storage from an overhead pipe.

6. Collections stored on the floor in the vault are at **risk** for water damage, such as the flag box and pictures.

7. If there is a problem in the vault room, staff may not promptly detect it, because staff seldom goes in the room. This lack of monitoring might delay salvage efforts that would result in greater damage to the collection and incur increased costs of recovery. There **are** security cameras in the room, but it was not known if they work and are monitored. Security cameras help determine unauthorized entrance, but miss minor leaks and pest infestations.

8. Recovery would be delayed if there were a small leak because there are no emergency supplies on-hand for quick response. Quick response time to a disaster is critical in salvaging the records and preventing loss.

9. **ARMS** staff would not be able to successfully document collection recovery needs and loss in the event of a disaster because there **are** not complete inventories and finding aids for the records.

10. Without copies stored off-site of inventories and finding aids, ARMS staff will not be able to successfully plan *a* recovery if these records were destroyed during a disaster. Without copies stored off-site of essential collection records, staff is hindered in making initial recovery plans as they wait for authorization to enter the building thus slowing down their recovery effort.

11. Due to the threat of anthrax contamination through the mail, the United State Post Office has been irradiating mail in the Washington, DC area. If this practice would expand to other geographic areas or other mail carriers, the mail to the UN Archives could be affected. Irradiation causes significant damage to paper materials.

B. Rented Space

Being housed in rented spaces poses the most significant risk *to* the UN Archives. Without oversight of the building, the ARMS staff is at a disadvantage for controlling the schedules and quality of the maintenance of mechanical and electrical systems, the content of maintenance contracts, selection and monitoring of service providers, selection of occupants and building policies for renovations, storage of hazardous materials, and security systems and procedures. **A** building with multiple tenants increases the need for the coordination of communication, building repairs, and safety procedures between tenants and the UN Facilities Management Division, and both Building Managers.

1. The activities of tenants can pose additional risks for pests, fire, mechanical Failures, and security breaches.

2. With many tenants, construction may be going on at any time. During times of renovation and construction, the risk for emergencies and damage to collections increases dramatically through system failures, burst pipes, fire hazards, security breakdowns, and accumulation of dust and dirt.

3. The buildings probably do not have asbestos, lead, and PCBs that can be complicating factors in a recovery effort.

C. **Fire**

Fire is a significant risk for the UN Archives in both storage locations, especially for the Falchi Building. Although many of the risks for fire can be mitigated, there are uncontrollable events that can cause a fire, such as human error and arson. The need for adequate fire detection and suppression throughout the UN Archives storage and use areas is critical because of the speed and totality of the destruction and loss of materials that can occur in a fire, The number of structural fires for 1998 and **1999** in New **York** City was about the same each year of approximately 29,500 incidents.

1. In buildings that serve many different functions and house several different tenants, there is an increased risk of fire when other units may not be vigilant in their fire safety procedures. As stated above, the risk of damage resulting from construction ***can*** increase due to welding accidents and improper clean-up procedures by contractors.

2. Although there are wet pipe fire suppression systems in both locations, maintenance of these systems is *not* under the Archives control. This makes the assurance of routine maintenance difficult.

3. **Lack** of adequate detection during the evening hours is a significant risk. **As** noted in the survey report by Capt. Clarence E. Clarke on January 17, 2002, the early warning detection is not as good during non-business hours. Detection is present only in the air filtration units during the night; however, there are areas in the building without air filtration units. During the day, the heating, ventilating, and air conditioning (HVAC) system covers the whole building and is installed with smoke detectors.

4. The sprinkler system layouts may not be adequate for the compact shelving units and are a significant risk that needs to be investigated.

5. Building management does not have a procedure to alert ARMS staff that the fire alarm or sprinkler systems have beer? activated. Their only procedure is to contact the fire department. It is not known if the system reports to a central monitoring station outside the building. Not knowing if the fire detection system has been activated, **the** ARMS staff would be unable to implement their emergency plan and prevent unnecessary damage and loss.

6. The lack of a comprehensive fire safety program (fire drills, floor captains, and propping open of doors) puts the staff and collection at risk.

D. **Security**

Staff safety and collection security are always a concern in an urban environment. Overali, the crime complaints for precincts 108 and 17 have decreased since 1993. The Crime Prevention Section of the New York City Police Department conducted a security consultation on October 9, 2001 at the FF Building and October 23, 2001 at the Falchi Building. The report noted several recommendations to upgrade the security for each site. **A** few are highlighted here.

1. The high national and international profile of the United Nations places the UN Archives at **risk** for arson, vandalism, and terrorism. Since this report focuses on damage to archival records and records management, the risks to the records relate to explosions, property damage, and disruption of electricity and communications. In addition, there is a threat for a cyber attack that could destroy computer records. The threat of terrorism is hard to predict and the extent of damage could be

minimal to devastating. The fact that the UN Archives are located in buildings that are not marked and not in the United Nations' building complex decreases the risk for terrorism.

2. Researchers are monitored at each site. There is a comprehensive written registration process outlined in the "'Research Regulations at The United Nations Archives." A daily log of researchers is maintained and all personal belongings of researchers are stowed, so they are not with the researcher while using the records. All of these procedures limit the possibility of theft or damage to the records. Thefts by researchers seem to bc minimal due to the appropriate safeguards and exiting procedures.

3. There is the risk of damage from a bomb blast at the FF Building due to the lack of security glazing on the glass doors.

4. The lack of continuous monitoring of the closed circuit television systems also poses a risk for early detection of a security breach. Some of the cameras are not vandal proof and arc frequently not functioning due to tampering.

5. Because the alarm, access control, and the closed circuit televisions systems at the Falchi building are no? integrated, the effectiveness of these systems is reduced.

6. The door to the freight elevator in the basement room of the Falchi building is difficult to completely shut. Unauthorized access could occur if this door is not properly closed.

E. Housekeeping

A good, systematic, and consistent housekeeping program should be a priority because clean collection storage areas significantly aid in the long-term preservation of the collection. Dust and dirt increase the deterioration of paper objects and pose a handling issue. When objects are handled, the dirt and dust stain and abrade the papers. If there is an emergency, such as a water leak, the recovery will be complicated by the presence of dust and dirt. A dirty environment is a lure for pests and prevents proper functioning of the HVAC's filtration system. Good housekeeping is a first defense for pest and insect control.

1. Collection storage areas are not cleaned on a regular basis in either storage location, so there is potential for an unacceptable accumulation of dust and dirt.

2. The Building Managers contracts housekeeping, so the ARMS staff is not in control of the housekeeping schedules and procedures. This arrangement makes it difficult for ARMS staff to give cleaning instructions to housekeeping staff and have cleaning done appropriately and when needed.

F. Pest Control

Archival materials (starches, cellulose, and proteins) are food sources for insects and rodents including cockroaches, silverfish, various beetle8 and book lice, mice and rats. There arc opportunities for food and avenues of egress for pests, such as food in the offices, loading docks, and dirty conditions. If a pest infestation does occur, the pesticides used may cause collection damage, as well as present a health hazard to staff and researchers.

1. Without an integrated pest management program in place, there is a risk for a pest infestation in the UN Archives.

2. There is a risk of pests coming into the Archives in materials from the missions and thus infesting other parts of the collection.

3. The pest management practices of the other building tenants may pose a **risk.**

G. **Mold**

Water disasters, failure of HVAC systems, and pockets of stagnant air that develop in compact storage situations increase the **risk** of a mold outbreak. A mold outbreak can seriously damage the archival records and cause a health hazard for the staff.

1. Because most disasters include water, there is a high risk for a mold outbreak during either minor or major emergencies.

2. Cleanup of even a small outbreak can he costly. In addition to attending **to** clean-up procedures, appropriate precautions must be taken **to** ensure the safety and health of persons in contact with mold, Mold enters the body by inhalation, through breaks in the skin, and even the eyes. Protective gear is necessary for safety in dealing with mold outbreaks.

H. **Mechanical Systems Failure**

There is always a possibility that mechanical systems will fail due to age, accident, and improper or neglected maintenance procedures. Many types of emergencies can result in a mechanical failure. Failure of mechanical systems can cause flooding (minor to major), fires, and breakdown of environmental control systems.

1. Collections are near and underneath pipes so there is a **risk** for damage from leaking or burst pipes.

2. If the environmental controls systems were inoperable for a significant length of time, temperature and relative humidity levels and lack of air circulation could promote mold growth.

I. **Electric Power Failure**

Power outages arc a common occurrence and should be expected to happen. Almost any emergency can result in a power failure. Natural disasters, accidents, or system overloads can cause outages, such as floods, lightning, winter storms, building collapse, electrical shorts, planned brownouts, and line maintenance. The length of a power failure is often unpredictable and can last for a few minutes or up to several days depending on the problem.

1. Lack **of** electricity would impact communication and computer systems thus hampering recovery efforts due to lack of access to telephones and collection information stored on computers.

2. Environmental controls systems would be inoperable, and, depending on the length of the disruption, temperature and relative humidity levels and lack *of* air circulation would risk mold growth.

J. **Weather**

The UN Archives is not at high risk of damage from weather. If a significant weather event would occur, staff might be prevented from entering the building and ensuring the safety of collections. Power failure and subsequent loss of environmental control could promote a mold outbreak.

1. *Earthquakes*: There have been incidents of earthquakes in Manhattan, but the magnitudes were low. There is probably more risk from vibration if a nearby building collapsed. Shelving mils are braced, so the likelihood of damage from an earthquake is minimal.

2. *Hurricanes/High Winds*: There is moderate risk for hurricanes seriously affecting the New York area. The risks from the hurricane would be flooding, water **seepage** into the building from high winds, window damage, and electrical power failure. There is usually sufficient time to implement some preparation procedures before a hurricane *hits*, so damage can be potentially mitigated.

3. *Tornadoes*: The New York area is a high-risk area for tornadoes. *It* is hard to determine the risk for the UN Archives, since a tornado is a violent localized weather event that creates **an** unpredictable path of damage. Damage can be severe, including structural damage to the building resulting in broken windows, mechanical and electrical system failure, burst pipes, structural damage to shelving units, and debris.

4. *Winter **Storms:*** There is moderate risk for a winter storm seriously affecting New York City. The risks from a winter storm might be flooding, bursting of frozen pipes, fires from alternate heating sources or improperly maintained generators or gas leaks, and electrical power failure. Then: is usually sufficient time to implement some preparation procedures before **the** arrival of a winter storm, so damage can be potentially mitigated.

5. *Thunderstorms*: Lightning can emerge from a thunderstorm and cause power outages, fire, and structural damage. It is hard to determine the risk for the UN Archives, since lightning is a localized weather event and unpredictable. However, if a transformer is damaged in the area or an adjacent building, the UN Archives may suffer from power outages and risk fire **and** smoke damage from neighboring buildings.

III. MITIGATION STRATEGIES

Mitigation is preparedness planning that is directed toward eliminating or reducing the probability of the occurrence of a disaster-producing event or reducing the effects of those events that are unavoidable. This section contains general mitigation strategies and areas for further investigation by the ARMS staff. All staff has a responsibility to be aware of, and to alert appropriate staff to, hazards posing a risk to the records. The fostering of a positive institutional attitude towards the value of mitigating potential disastrous events underpins a successful planning process. "The institution's greatest resource is a well-trained staff that is accustomed lo thinking through emergencies."[1]

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It is recommended that the Archives and Records Management Section (ARMS) develop strategies to mitigate identified risks.

A. **Collection**

1. **Review collection storage areas and alter them to provide the safest conditions, such as storing items off the floor and away from hazards, especially areas with chronic leaks.**

   a) The Palestine maps should be moved off top shelves in the vault where they are in close proximity to the sprinkler heads. Even if these records are considered temporary, they should he removed from such an unnecessary risk.

   b) Store magnetic tapes at least 6" off the floor.

   c) Keep all boxes 6" above the floor in order to minimize damage in the event of a leak, including the box with flags.

2. **Salvage priorities should be established with guidelines to use for making salvage decisions at the time of an emergency.**

3. **A determination should** be **made as** to **which records should he microfilmed in order to have a security copy. If the original records are damaged or destroyed, having a microfilm copy is the most effective strategy to prevent total loss of records.** Because many of the records of the UN are mostly significant for their informational value only, and they have high research appeal, a microfilm copy is a sufficient surrogate.

   a) Ensure that the microfilm company chosen follows the American National Standards Institute (ANSI) standards for the production of preservation microfilm. **All** microfilming projects should provide a master negative, a copy negative, and a use copy.

   b) Master microfilms should he located off-site in acid-free boxes in a safe and climate-controlled area with low humidity conditions. Ensure that the off-site storage location can meet environmental conditions according to ANSI standards for microfilm storage. If for any reason the copy microfilms are destroyed, the master negatives can be used to generate additional copies.

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[1] *Building an Emergency Plan:* A *Guide for Museums and Other Cultural Institutions.* Compiled by **Valerie** Dorge and Sharon Jones. Los Angeles CA: Getty Conservation Institute, 1999: **144.**

4. Determine which of the magnetic tapes and sound recordings should have a duplicate stored off-site. If the original tapes or recording are damaged or destroyed, a duplicate copy that is stored off-site is an effective strategy to prevent total loss of records.

5. Determine which of the photographic negatives should have a duplicate stored off-site.

6. Store a copy of all critical records, such as inventories and finding aids, off-site in a safe location to ensure their security and zccessihility in the event of a disaster. For insurance or disaster relic€ aid, documentation of a theft or loss by disaster can be made only if a complete inventory is available.

7. Purchase emergency supplies to have on hand for use in quick response to a minor disaster, especially plastic sheeting for covering shelving units in ?he event of a leak.

8. Prepare a service providers list for emergency response. ARMS staff should have the name of a paper conservator and a magnetic media expert for consultation on salvage response needs and assistance at the time of an emergency.

9. On a daily basis, check the collection in the vault to catch potential disasters as early as possible.

10. Keep abreast of all mail carriers' practice for irradiating materials. Monitor incoming materials for potential damage.

B. Building Facilities

The ARMS staff faces the challenge of occupying rented space in both the FF and Falchi Buildings. Successful mitigation, response planning and recovery are contingent on have an effective ongoing relationship with the Building Managers. Being cognizant of the buildings' procedures and systems provides ARMS staff with the necessary information needed to prepare a disaster preparedness and response plan for the records.

1. Meet regularly with the Building Managers at each location to discuss building and emergency response concerns. The Building Managers should be aware of the value of the collections and understand the need to minimize loss of the records.

   a) UN Security and Safety Service and UN Facilities Management Division should be part of the discussion with the Building Managers.

   b) Review the existing emergency and evacuation plans *for* each building and coordinate with the ARMS plan.

   c) ARMS staff should actively monitor the facilities maintenance program and changes in the building systems and procedures. Concerns should be communicated to the Building Managers, UN Security and Safety Service, and UN Facilities Management Division.

2. Work with the Building Managers towards instituting a systematic facilities maintenance program that provides schedules and guidelines for inspection and preventative maintenance of the building and mechanical systems. This routine inspection is crucial for identifying potential building hazards.

a) Once building hazards are identified, measures to correct the problems and minimize potential risks should be undertaker? immediately. A failure of building and mechanical systems can cause a disaster more expensive to repair than the cost of regular maintenance of these systems.

b) Any situation that might promote the possibility of a mold outbreak, such as leaks, areas with chronic moisture, water damage, or high humidity levels should be corrected. An outbreak of mold causes damage to the collection and presents a health hazard to the staff.

c) Protection from all kinds of weather extremes is a critical building function. Review with the Building Managers both facilities' risks for damage due to weather, such as the air intake and exhaust vents, exposure to wind and snow, protection of equipment exposed to the outdoors, roof stability, and earthquake tolerance.

3. Foster good relationships with tenants, in order to have effective communication at the time of an emergency, as well as to coordinate mitigation efforts to prevent an emergency.

4. Assess the risks posed by tenants in both buildings and strive to both reduce risks and incorporate risks in planning strategies.

C. **Fire**

1. The ARMS stat? should determine the level of fire protection needed. The fire protection systems should at least meet the NFPA 232-2000 *Standard for the* ***Protection*** *of Records*. Fire protection procedures and systems should be reviewed annually.

2. The sprinkler system layout in the storage areas with compact shelving units should be reviewed to determine if it meets standards for compact storage areas. A review of the fire protection needs for compact shelving can he found in Appendix C of the **NFPA** 909 *Standard for* ***the*** *Protection* ***of*** *Cultural Resources Including Museums, Libraries, Places of* ***Worship*** *und* ***Historic Properties.***

To increase effectiveness of the storage system, consideration should be given to keeping the units several inches apart especially when area5 are not occupied. Rubber stops can be installed so units never completely close.

3. Institute a fire safety program in cooperation with ?he UN Security and Safety Service and both Building Managers.

a) A visit should also be scheduled €or both buildings with the local fire departments so they can be made aware of the value and location of the unique collection, and formulate plans in the event of a fire.

b) Regular fire drills should be conducted

c) Fire extinguishers should be regularly inspected

D. Security

In order to limit damage to the collection by mutilation, vandalism, or theft by researchers and staff, appropriate security procedures and systems need to be in place. The presence of strict and consistent security procedures can serve as an important public relations tool by promoting an atmosphere of safety in the UN Archives, as well as highlighting the UN Archives' good stewardship in safeguarding the collection. During an emergency, security measures to safeguard the collection are important because many of the regular security procedures and systems may not be functioning.

1. ARMS staff should review the recommendations from the Crime Prevention Section of the New York City Police Department and implement them in consultation with the UN Security and Safety Service.

   a) Installation of security glazing on the glass doors at the Falchi Building would decrease damage in the event of a bomb blast.

   b) Institute the recommended changes to increase the effectiveness of the alarm, access control, and the closed circuit televisions systems at the Falchi Building.

2. The review of the security measures should take into account the potential risk to the UN Archives for acts of civil disobedience, theft, vandalism, and terrorism.

3. Annually review security procedures and systems to ensure that they operate adequately and can provide the needed protection for the staff and the records. Staffing levels should reflect the safety requirements for staff and the collections, especially in research rooms where staff members are needed to monitor researchers and retrieve materials.

4. Maintain the strict and rigorous monitoring and registration procedure for researchers.

5. Staff should take advantage of the personal safety lectures offered by the Crime Prevention Section of the New York City Police Department.

E. Housekeeping

1. An ongoing housekeeping program should be maintained. Work with the Building Managers to maintain regular cleaning schedules.

2. Housekeeping supplies should be properly stored in areas away from collections. Care should be taken to ensure that any cleaning equipment with strong magnets is not used around the magnetic tapes.

3. Continue to minimize risk of pests by removing hash on a daily basis and prohibiting use of food in collection storage areas and the researcher rooms.

F. Best Control

1. In order to prevent damage to the collection, the tolerance level for a pest infestation must be extremely low. Develop an Integrated Pest Management Program to prevent unnecessary damage from pests.

a) Review all pest management contracts with safety of the records in mind. Caution is needed in the assessment and use of pesticides as they present health hazards to people and potentially damaging effects to collection items.

b) Before the introduction of any pesticides or fumigation occurs in the building, the ARMS staff should be consulted to ensure that the proposed procedures would not harm the collection.

2. Continue the practice of inspecting all incoming collections for pest infestations to ensure that pests are not introduced into the collection storage areas. Ideally, there should be a place in the building where materials waiting inspection can be housed. infested materials shouid not enter the UN Archives if they cannot be quarantined.

3. On the service providers list for emergency response, ARMS staff should have the name of an exterminator or pest management consultant who has experience with libraries, special collections, archives, museums, and other cultural collections for appropriate eradication techniques.

G. Mold

1. The disaster preparedness and response plan should include strategies to respond to a mold outbreak. An industrial hygienist should be consulted before cleaning any mold outbreak that results from a flood or very wet conditions.

2. On the service providers list for emergency response, ARMS staff should have the name of a consultant who has experience with mold outbreaks in libraries, special collections, archives, museums, and other cultural collections for appropriate recovery approaches.

H. Electric Power Failure

1. Review with the Building Managers the plans to resume power after an electrical power failure, including a determination of the reliability of the electricity providers.

2. Determine what systems will he down if there is an electrical failure, such as computer, telephone, security, fire detection, and lighting.

a) Assess tolerance levels for electric failure. If possible, determine approximate length of time environmental conditions would remain stable when environmental control systems are down.

b) Assess need for on-site generation systems that can be used as a backup for electrical service. An interim power supply should be available for safe shutdown of computers.

c) Maintain a rigorous computer back-up schedule.

d) Purchase additional emergency lighting for staff safety, especially in storage areas. Have flashlights readily available in storage areas.

3. The disaster response plan should have strategies to respond to electric failure.

IV. RESPONSE PREPARATION TASKS

Disaster response preparedness refers to the preparation of a framework for organized and immediate response to disaster situations that cannot be mitigated. Upon completion of a risk assessment and implementation of mitigation strategies, staff is able lo determine the likely emergencies that can happen. Planning efforts can then focus on probable events and prepare for those that cannot be mitigated. A commitmeat to disaster preparedness and readiness must be fostered to ensure safekeeping of the records, minimize collection damage and loss, and limit costs for recovery.

Preparing a comprehensive disaster prepareduess and response plan can feel like a daunting prospect. The tasks listed below are to help staff get started. Remember that disaster planning and response activities ***are*** ocgoing and routine schedules to update and review procedures, communication channels, and information, keep the plan viable and current.

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It is recommended that the ARMS staff prepare a responseplan for the UN Archives.

A. Staffing

- Develop a disaster preparedness and response team and outline the duties and responsibilities for the emergency response team.

- Work with UN Security and Safety **Service,** UN Facilities Management Division and both Building Managers in the planning process. They will be able to provide needed information and they need to know about the ARMS staff planning efforts.

- Determine the chain of command for staff responding to an emergency.

- Anticipate communication needs and procedures during an emergency, both internally for staff to manage a recovery effort, and facilities managers of each building, as well as externally with emergency responders (Police, Fire Department), service providers, and the media. Develop guidelines for communication protocols.

- Review with the UN press spokesperson the media interaction needed in the event of an emergency for the UN Archives.

B. Telephone Lists

- Maintain a list of names and home telephone numbers of all staff, Staff designated to respond during an emergency should be identified.

- Maintain a list of local vendors for purchase of supplies and equipment.

- Maintain a list of service providers, such as security company, cold storage facility, freeze-drying facilities, conservators, pest control manager, industrial hygienist, and moisture control service.

- Copies of all **lists** should be stored off-site including at home for relevant staff.

- Set a schedule to update lists on a regular basis and distribute updates to appropriate staff.

C. Contacts

- Meet with Building Managers, local police, and fire departments to learn what to expect from them and to explain the types and location of your collections.
- Meet with building system companies, such as the fire suppression company, to learn about system capabilities.
- Develop a relationship with paper conservators to help assist in the event of an emergency.
- Develop a relationship with a vendor who can salvage magnetic media.
- Develop procedures to expedite authorization for emergency expenditures.
- Develop contractual arrangements with key vendors to expedite purchasing at the time of an emergency, including cold stage and vacuum freeze drying vendors.
- Identify a storage location where collections can be moved during a recovery effort– both on-site and off-site, depending on the emergency. Develop criteria for selecting a storage location.
- Identify sources of funding.

D. Fact Sheets on Emergency Procedures

- Develop simple instructional fact sheets on emergency topics such as evacuation plans, bomb threats, storms, electrical failure, fire, and medical emergencies.
- Develop fact sheets on handling and recovery procedures for collections and office equipment.
- Develop an incident report form for collection damage and loss. Develop procedures for recovery of materials from theft.
- Annotate copies of building floor plans with the locations of emergency exits, electrical boxes, gas and water shutoff valves, fire alarm pulls, fire extinguishers, emergency and first aid supplies, 2nd controls for the heating, ventilating and air conditioning (HVAC) system.

E. Collections

- Develop guidelines for determining collection salvage priorities at the time of an emergency.
- Develop guidelines for handling and moving collections.
- Identify documentation and record-keeping needs.

F. Supplies

- Maintain a stockpile of emergency supplies and equipment. Determine a safe location with easy access for the supplies. An institution's expected needs for recovering from emergencies for both small-scale and major events should guide the selection 2nd quantity of supplies and equipment.

- Maintain an inventory of the supplies for recovery.

- Identify vendors for purchase of supplies in bulk.

G. Store Qff-site

- Keep copies of essential records in a secure and accessible place off-site, such as telephone lists, emergency plan, personnel infomation, building floor plans, list of chemicals stored in facility, inventory of supplies, service contracts and records documenting collections (inventories, accession logs, card catalog back-up tapes). Relevant ARMS staff should keep copies at home.

- Maintain copies of critical keys in a safe and accessible place,

H. Training

- Train all staff in basic emergency procedures. Everyone on staff should know what they **are** to do if they are the first on the scene of an emergency. **All** staff needs to **know** evacuation procedures. **A** flip chart for initial response protocols is recommended.

- Ensure ARMS staff responsible for salvage decisions have appropriate training in health and safety precautions, handling damaged items, and salvage options and procedures for collections.

- Periodically practice emergency procedures, including evacuation plans, use of fire extinguishers, and handling damaged objects. Hold tabletop exercises to explore disaster-related scenarios.

V. ELEMENTS OF A DISASTER PREPAREDNESS AND RESPONSE PLAN

- Table of Contents
- Introduction - use of the document - revision schedule - responsible personnel - general facility information
- Risk Assessment
- Emergency information sheet - fire/police departments - hospitals - emergency shut-offs - utility companies - brief list of emergency respondents
- Telephone/reporting tree
- Records priorities
- Response Outline
    - determining lead personnel responsibilities
    - assessing the situation
    - organizing efforts
    - establishing a command post
    - eliminating hazards
    - controlling the environment
    - dealing with the media
    - obtaining emergency funding/supplies
    - providing security
    - providing human comforts
- Supply lists and assistance/equipment vendors
- Clear description of salvage techniques
- Rehabilitation plans for conservation treatment
- Appendices