

**VIRGINIA COMMONWEALTH UNIVERSITY LIBRARIES**  
**COLLECTION DISASTER PLAN**

May 2003

# **1. INTRODUCTION**

## **1.1. STATEMENT OF PURPOSE**

The purpose of this disaster plan is to state the charge of the VCU Libraries (VCUL) Collection Disaster Preparedness Work Group, to outline steps of action for a variety of disasters, to describe salvage and recovery operations for fire and water damaged materials, and to provide emergency and recovery services' names and phone numbers.

## **1.2. SCOPE**

The plan covers both natural and man-made disasters that damage library materials. The response and salvage guidelines apply to disasters of all magnitudes in all the Libraries' facilities. Salvage guidelines are pertinent only to library materials, not to buildings, supplies, and equipment. The VCU Libraries Emergency Response Plan addresses personal safety for those in the VCU Libraries when a disaster occurs.

Section 2 briefly describes the composition and responsibilities of the Collection Disaster Preparedness Work Group. Sections 3 lists disaster response supplies. Section 4 outlines the initial response steps to recover the physical collection from any disaster. Sections 6 through 10 define disaster recovery responsibilities and describe salvage procedures.

## **1.3. DISTRIBUTION**

Copies of the most recent revision of this plan are kept at work and at home by those listed in Appendix B: Disaster Response Contacts. In addition, an updated plan is distributed to the VCU Division of Facilities Management, the City of Richmond Fire Department, library department heads, and other library staff members upon request.

It is important that all copies of this plan be current. Copies that are not current may perpetuate obsolete information and could jeopardize disaster recovery. The current authorized copy is maintained on the VCU Libraries internal staff Web site.

## **1.4 LOCAL ASSISTANCE**

The Virginia Conservation Association has a Disaster Response Team comprised of local conservators. For assistance, contact Stacey Rusch at the Virginia Historical Society, 342-9674. Alternate: Melba Myers at the Dept. of Historic Resources, 367-2323, ext 130.

# **2. COLLECTION DISASTER PREPAREDNESS WORK GROUP**

## **2.1. COMPOSITION**

The Collection Disaster Preparedness Work Group consists of: Head of Preservation Department (chair), an archivist, Head of the Media and Reserve Services Department, Head of Collection Management Department, and the Planning and Assessment Librarian. The Administrative Services Librarian serves as liaison with the Administrative Council. The University Librarian's assistant provides staff support.

## **2.2. RESPONSIBILITIES**

1. To revise, update, and expand the Libraries' Collection Disaster Plan and to maintain the currency of the emergency and recovery services contacts and phone numbers, the floor plans, and the organizational chart. The Work Group checks the accuracy of these names and numbers and the validity of agreements and contracts at least annually.
2. To perform annual inspections of the James Branch Cabell and Tompkins-McCaw libraries to examine critical areas of buildings for conditions that might cause a disaster, including but not limited to basement walls and floors, exposed water pipes, roofs, and heating and air conditioning units. The Work Group assesses the quality of housekeeping in VCUL facilities and reports the results of all inspections to the University Librarian in writing. The Work Group uses as a guideline the "Fire Safety Self-Inspection Form for Libraries" published in NFPA 910 (see Appendix G) or an approved alternative. **TIMING?**
3. To check annually the disaster response supplies for completeness and condition. The Work Group replaces missing and deteriorated supplies.
4. To arrange for annual inspections of the Cabell and Tompkins-McCaw libraries by the VCU Department of Fire/Safety, the VCU Facilities Management Division, the City of Richmond Fire Prevention Division, and other agencies as approved by the University Librarian. The Work Group reports to the University Librarian in writing the results of all inspections.
5. To act as disaster response team leaders in the event of a disaster. Each Work Group member is responsible for training team members in salvage techniques and for directing their work during salvage operations. The Work Group chair serves as the disaster recovery director.
6. To implement a staff disaster awareness program. The Work Group presents to all library staff no fewer than one program per year on the topic of disaster prevention and response. The Work Group also creates and distributes to all new staff - as a part of their orientation - an information sheet or packet describing disaster prevention, preparedness, and recovery at the Libraries.
7. To develop a reference library of disaster literature to be available to Work Group members and other interested library staff.

## **3. DISASTER RESPONSE SUPPLIES**

### **3.1. GUIDELINES FOR USE**

Disaster response supplies are centralized in the Cabell Library in the Preservation Department, room 231. Supplies are available to respond to limited disasters involving water, such as minor flooding. The Head of Preservation should be contacted in situations where disaster threatens library materials or other library contents.

### **3.2. SUPPLIES**

Disaster response supplies are centralized in the Preservation Department :

- plastic sheeting
- towels/rags

- scissors
- flashlights with batteries
- plastic bucket
- copy of Collection Disaster Response Plan
- writing tablets
- assortment of markers and pencils
- hammer
- screw driver
- pliers
- 1 Emergency Response and Salvage Wheel™.
- Rescubes for packing wet books
- rubber boots
- disposable gloves

#### **4. DISASTER RESPONSE**

- 4.1. Emergency personnel will release the building to the University Librarian. The University Librarian will authorize access for recovery of the collections.
- 4.2. Refer to Appendix D: Salvage Priorities. *Do not change the criteria or prioritization at this time.*
- 4.3. Photograph or videotape the damage. See Appendix E: Documenting Damage.
- 4.4. Consult with the Information Systems disaster response team to coordinate assessment phase.
- 4.5. List necessary supplies, equipment, and services. Give to Administrative Services Librarian to begin collecting and requisitioning items.
- 4.6. Review list of work to be done from Damage Assessment. Divide the damaged collections among staff for supervision of activities.
- 4.7. Begin recovery with the first category of priority for recovery. Start with removal of standing water and debris. Remove items first from the floor, then the shelves. When the first priority has been dealt with, move to the second priority.

#### **5. MOLD**

- 5.1. Speed is critical in preventing mold from spreading. Upon the discovery of mold or mildew, call the chair of the Collection Disaster Preparedness Work Group. Contact Physical Plant to lower the humidity and increase cool air in the area. Do not use a fan as it will spread the mold.
- 5.2. Isolate affected materials. Locate a dry area where tables can be set up to treat the books. Put plastic garbage bags over carts while moving moldy books. If a large area is affected, quarantine it by closing doors, hanging plastic sheeting around affected area, and reducing air circulation to the rest of the building.

- 5.3. Freezing will stop mold growth and kill active mold. It will not kill spores, which will become active again in ambient environmental conditions.
- 5.4. With the guidance of the Collection Disaster Preparedness Work Group, treat the damaged materials.

## **6. SALVAGE ADMINISTRATION**

This section assigns and defines salvage responsibilities. The individuals, or their alternates, holding the positions listed below have the authority to carry out the assigned tasks. The Recovery Director, at the time of the disaster, will assign other duties. This document provides guidelines for disasters affecting VCU Libraries only. In the event of a local or regional disaster, salvage operations are dependent on University priorities.

### **6.1. UNIVERSITY LIBRARIAN**

The VCU Libraries University Librarian authorizes expenditures, the hiring of temporary staff, and staff overtime. He/she is responsible for all communication with University administration, and all communication with the public and the media on behalf of the University. He/she will coordinate volunteer operations, including requests to volunteer organizations, if necessary, brief the responsible parties within the library on public relations announcements, and determine what back up services, if any, the library will provide.

Alternate: a Director appointed by the University Librarian.

### **6.2. ADMINISTRATIVE SERVICES LIBRARIAN**

The VCU Libraries Administrative Services Librarian is responsible for investigating methods of payment accepted by suppliers, preparing requisitions for supplies and services, purchasing supplies and materials, providing a current and accurate list of library personnel, and establish security with the appropriate law enforcement agency.

Alternate: Accountant, Libraries Business Office

### **6.3. VCU DIRECTOR OF RISK MANAGEMENT**

The VCU Director of Risk Management advises the University Librarian and Recovery Director on insurance coverage (e.g., the types of materials insurance will replace, the salvage expenses insurance will reimburse, and the required documentation and procedures for submitting claims). He/she coordinates activities of insurance representatives, the Richmond Fire Marshall, and other safety inspectors with Recovery Director.

Alternate: designated by the Director of Risk Management

### **6.4. RECOVERY DIRECTOR (CHAIR, LIBRARY COLLECTION DISASTER PREPAREDNESS WORK GROUP)**

The Recovery Director coordinates the overall recovery effort. He/she directs team leaders, works with the University Librarian and the VCU Risk Management Director, interprets salvage priorities, makes salvage decisions, maintains internal communication, and contacts services and consultants.

Alternate: Collection Disaster Preparedness Work Group member as appointed by the Chair and approved by the University Librarian.

## **6.5. TEAM LEADERS (COLLECTION DISASTER PREPAREDNESS WORK GROUP)**

Collection Disaster Preparedness Work Group members serve as salvage team leaders and direct the efforts of those under their supervision. They also train and supervise volunteers.

Alternates: as designated by each team leader

## **6.6. SALVAGE TEAMS**

Salvage teams consist of the Team Leader, one Collection Management librarian, one cataloger, and three other members of the library staff selected by the work group and approved by the University Librarian. In a limited disaster, teams alone may perform all salvage operations. In larger disasters, teams train other library staff and volunteers in salvage operations and direct the work of sub-teams. All team members receive regular, periodic training in salvage techniques.

## **6.7. CONSULTANT**

If deemed necessary by the Recovery Director and approved by the University Librarian, a disaster recovery consultant is hired to advise the Recovery Director during salvage operations.

# **7. SALVAGE PREPARATION**

Before actual salvage activity can commence, the following tasks, in priority order, must be completed. Each description includes the appropriate official authorized to carry out the particular task.

## **7.1. ESTABLISH SECURITY**

Responsibility: Administrative Services Librarian.

The Administrative Services Librarian arranges for security measures and precautions to protect both the collections and individuals. He/she may consult with VCU Risk Management, VCU Administration, and VCU Security to determine the appropriate measures.

## **7.2. APPOINT RECORDERS**

Responsibility: Recovery Director

The Recovery Director appoints an individual who will be responsible for maintaining a record of recovery activities and decisions. He/she also arranges for photographer(s) to document both the initial inspection and the salvage operations.

## **7.3. STABILIZE ENVIRONMENT**

Responsibility: VCU Facilities Management and Recovery Director

The Recovery Director, with VCU Facilities Management, determines the most appropriate means to cool and ventilate the disaster area. Some or all of the following activities may be considered.

1. Reduce the temperature of the affected area as much as possible (but do not allow water pipes to freeze), by keeping the building's HVAC system operational and by installing

- portable air conditioners where necessary.
- 2. Open windows and doors, and install fans in strategic locations to aid air circulation.
- 3. Use portable dehumidifiers, where necessary, to reduce the relative humidity.
- 4. Install portable generators if central power is off. Ground and waterproof all lines.
- 5. Monitor closely the temperature and relative humidity using data-loggers or other equipment to measure temperature/relative humidity.

**7.4. ASSESS DAMAGE/DETERMINE PRIORITIES**

Responsibility: Recovery Director, Salvage Team Leaders, VCU Photographer, VCU Director of Risk Management, Head of Collection Management.

After VCU Facilities Management clears the site of any suspected hazards, the Recovery Director, the Salvage Team Leaders, the VCU Photographer, the VCU Director of Risk Management, and the Head of Collection Management review the affected area to determine the scope of disaster. They decide if consultant(s) are needed, determine salvage techniques to use, and assess personnel and supply needs.

Assessment entails close examination of materials to determine the number of items affected and the extent to which they are damaged. Note: Check the interior of books and boxes to determine exactly how wet or burned the materials are. DO NOT simply examine a volume's covers, which can be misleading.

The Recovery Director, in consultation with the Head of Collection Management, determines recovery priorities based on the salvage priorities in Appendix D of this plan.

**7.5. CONTACT DISASTER RECOVERY SERVICES**

Responsibility: Recovery Director.

The Recovery Director and Team Leaders determine the needed services. The Recovery Director consults with the University Librarian to authorize expenditures, the Administrative Services Librarian to determine the method of payment, and the VCU Director of Risk Management to determine the extent of insurance coverage of the chosen services.

Virginia Conservation Association Disaster Response Team	
Stacey Rusch	804-342-9674
SOLINET Preservation Office	
Julie Arnott	800-999-8558
Munters Corporation	978-241-1100
BMS Catastrophe	
Belfor USA	

**7.6. GATHER SUPPLIES**

Responsibility: Recovery Director, Team Leaders, Administrative Services Librarian  
 The Recovery Director and Team Leaders decide on the necessary salvage supplies and

investigate sources for purchase. The Administrative Services Librarian arranges for purchase through requisition or authorizes direct purchase. Note: Until supplies arrive, limited salvage may begin using supplies from the Libraries Preservation Department.

Following is a list of supplies that may be necessary to buy. The list is arranged by suggested sources.

7.6.1. Supermarket (Ukrops, Kroger)

- a. Freezer paper or wax paper
- b. Paper Towels
- c. Sponges
- d. Pens
- e. Plastic Trash Bags

7.6.2. Office Supply Store (VCU, Contract Office Supply company)

- a. Identification badges for recovery workers
- b. Writing pads and ball point pens
- c. Staplers and staples
- d. Tape and scissors
- e. Calculator
- f. Blotting Paper
- g. Blank newsprint

7.6.3. Hardware Store (Pleasants, Lowe's)

- a. Flashlights
- b. Batteries
- c. Gloves
- d. Mops and buckets
- e. Plastic Sheeting (heavy)
- f. Packing tape
- g. String
- h. Large trash cans

7.6.4. Media General

- a. Un-printed newspaper (inquire about free newsprint before purchasing)

7.6.5. Refuse Companies (BFI, Bay Disposal, Cox)

- a. Dumpsters and hauling

## **7.7. ESTABLISH SALVAGE HEADQUARTERS**

Responsibility: University Librarian, Recovery Director, Team Leaders

7.7.1. Major Disaster

If a major disaster strikes the Libraries, the University Librarian consults with University Administration to decide the best location for salvage operations headquarters. The Libraries has tentative arrangements with the following locations, but the University

Librarian must make final arrangements as needed. All arrangements described here apply to disasters affecting only a library facility. Other possible locations include: Hibbs Hall, Business School, Rhoads Hall, and the Richmond Landmark Ballroom.

Cabell Library:

Location: Student Commons

Contact: Tim Reed

Phone: 828-6500

Tompkins-McCaw Library:

Location: Larrick Center

Contact: Jim Miller

Phone: 828-3438

7.7.2. Limited Disaster

In a limited disaster the responsible parties make every attempt to identify an area in library facility to conduct salvage operations. The area must be unaffected by the disaster, must be cool and well ventilated, and must accommodate air-drying of the damaged materials.

7.7.3. Establishing the Site.

Salvage headquarters must be equipped with working telephone(s) and electric power. The Recovery Director arranges to have library catalog terminals installed if they are not present or additional terminals connected, if too few are available for the quantity of materials to be processed. In addition, the Recovery Director and Team arrange for an adequate number of tables, chairs, shelves, and photocopiers to be delivered. Finally, they establish an area for staff breaks with coffee pot, snacks, and chairs.

## **7.8. ESTABLISH COMMUNICATIONS**

Responsibility: Recovery Director.

The Recovery Director determines the most appropriate method of maintaining communication among salvage headquarters, team leaders, the University Librarian, the Development and Community Relations Officer, and the Administrative Services Librarian. If telephones are unavailable, couriers and walkie-talkies may be used.

## **7.9. ARRANGE FOR TRANSPORTATION**

Responsibility: Recovery Director

The Recovery Director determines the most appropriate form of transportation and arranges for removal of materials off site, if necessary. If available and adequate, the Libraries vans are the first choice. For removal of larger quantities of materials to local off-site freezer storage, the Recovery Director investigates the use of other University or State vehicles. For long-distance hauling of materials to a freeze-drying facility, he/she contacts the firm of choice to arrange for transportation.

## **7.10. PREPARE IDENTIFICATION**

Responsibility: Team Leaders.

Team Leaders establish a consistent means of identifying salvage personnel and other officials for security purposes. They may consider color-coded badges for various levels of authority.

## **8. SALVAGE AND REHABILITATION OPERATIONS**

### **8.1. REMOVE MATERIALS**

After VCU Facilities Management declares the disaster area free of hazards and after the Recovery Director, the Salvage Team Leaders, the VCU Photographer, and the VCU Director of Risk Management have assessed the damage and assigned priorities, salvage teams begin recovery operations. All salvage workers, including volunteers, must belong to a team. Workers may remove materials only with the approval of their Team Leader.

Within the salvage priorities, specific items may deserve higher priority than others. The Collection Management librarian on each team makes ad hoc decisions about individual items. For example, high priority items might include those that have developed mold, leather bound books, parchment and vellum materials, artifacts, manuscripts, and materials with coated paper.

#### **8.1.1. General rules for removing damaged materials**

1. Start with those items immediately blocking main entrances and exits and gradually work towards the interior and into the stacks. This speeds up traffic flow and prevents further damage to materials "in the way".
2. Deal then with those items on the floor and those blocking work spaces. This, too, helps speed up the evacuation process and keeps materials from being stepped on.
3. Clear bookshelves from the bottom up. Usually items on lower shelves are the wettest and most vulnerable to further damage. Be careful, however, of top-heavy shelves; they may tip over causing possible injury to workers and further damage to materials.
4. Handle all wet materials with care. Many are more fragile than they may at first appear.
5. Never squeeze thoroughly soaked books to remove water. This may permanently "glue" the pages into blocks.
6. Leave books shut. Opening may permanently damage them.
7. Remove damaged materials from the disaster area as rapidly as possible. Place books in boxes spine down, one book deep. Avoid over-packing materials into boxes. This may cause materials to tear apart or warp. Remember, too, that wet books are heavy. Rescubes are especially designed boxes for moving wet library materials. They should be used first.
8. Transport boxes on movable pallets if lifting machinery is available.

9. Group boxes outside the disaster area in small units to allow a free flow of air around the materials until the materials can be examined to determine rehabilitation method. Unless the boxes are needed immediately to remove other materials, leave the evacuated materials in those boxes for further processing.

#### 8.1.2. Special Rules

##### Documents (loose papers)

1. Do not disturb damp or wet documents or other loose papers, whether strewn or in piles, until the librarian responsible for the documents examines them and authorizes evacuation or other special treatment.
2. Leave all materials as grouped in their original folders, drawers, or other storage containers.
3. Whenever possible use the original containers to remove materials for further treatment. Filing cabinets, for example, can be removed drawer by drawer.
4. Never try to drain storage containers by turning them upside down.

##### Coated Paper

1. Segregate these volumes for immediate freezing or freeze-drying. Their successful restoration is directly proportional to the rapidity with which they are treated.
2. Be particularly careful not to squeeze or bend volumes since these materials are even more fragile than books of standard paper.

##### Audio-Visual Formats

1. Remove audio-visual formats in their storage containers or drawers as is feasible.
2. Do not drain water-filled containers.
3. In most cases remove water-soaked film materials (e.g., loose tapes and slides found on the floor) in a water-filled shallow tray, pail, or similar container rather than let them dry out. Do not stack them or allow unwound tapes to tangle further.

## **8.2. CLEANING/WASHING MATERIALS**

Clean soiled materials only under the following guidelines. When in doubt, do not clean or wash soiled materials; most dirt can be removed after an item is dry.

#### 8.2.1. Damp Books and Documents

1. Gently brush dry dirt and ash from library materials using large brushes, cheesecloth, or dust rags.
2. Wipe off with gentle strokes before air-drying books and other media that are merely damp; however, never wash materials that are merely damp. Dry mud and heavy soot should be left for professional cleaning later in the recovery process.

### 8.2.2. Soaked Books and Documents

1. Wash very muddy, soiled books that are already soaked. The procedure for cleaning and "washing" closed books involves a cycling process using a series of four to eight washing tanks (e.g. 100 litre or 20+ gallon bins) containing clean water. *Do not use soap or other cleaner.* Closed books should be held firmly shut with fore-edge down and dunked to remove mud, silt, or wet ash and by sponging with a dabbing motion. Do not rub; let the water do the work! Brushing or rubbing may push dirt into the binding or bruise or tear the paper.
2. Do not wash books with coated paper or special inks. Freeze them immediately as they are.
3. Never wash documents, manuscripts, and other loose papers; air-dry them as soon as possible.
4. Carefully rinse muddied photographs that are already soaked in vats of clean water. Never rub them to remove soil; this will only damage the pictures more.

### 8.2.3. Soiled Audio-Visual Materials

1. Wash tapes, films, and other audio-visual formats that cannot be easily replaced by immersing them in clean water. Gently swirl them until most of the soil has come off.
2. Do not wash materials of questionable value or that can easily be replaced.

## **8.3. DETERMINING REHABILITATION METHODS**

There are several techniques for rehabilitating damaged library materials. The technique or combination of techniques to be used is based upon several factors: the extent or seriousness of the damage, the quantity of materials involved, weather conditions, the cost, and the extent of insurance coverage.

There are certain recognized guidelines for deciding treatments based on the fragility of the library materials themselves. For example, to attain a reasonable rate of successful salvage of coated paper materials, one must either freeze them immediately and send them to be professionally treated or have them professionally freeze-dried from the start. The same is true for most books that have been thoroughly soaked, even those of sturdier paper.

Air-drying can be successful for most damp materials including documents, photographs, and manuscripts as well as books. It is difficult, however, to air-dry vast numbers of books, given space limitations and the large amount of time often needed to completely dry them. Usually the air-drying method is recommended for quantities of 500 volumes or less. For larger disasters, immediate freezing and eventual freeze-drying are recommended.

Following are general guidelines for making quick rehabilitation method decisions.

1. Coated Paper. If the leaves of a wet volume with coated paper have not adhered to each other, freeze the volume with coated paper immediately. If it cannot be immediately frozen, set it aside. When freezing is possible, reexamine such volumes. Freeze them only if their leaves can be separated. Otherwise, withdraw them from the collection.

2. Under 500 Volumes. If 500 or fewer volumes are water damaged, air dry damp volumes with uncoated paper. Vacuum freeze-dry soaked volumes and volumes with coated paper.
3. Over 500 Volumes. If more than 500 volumes are water damaged, freeze them as soon as possible. Freezing stabilizes materials and prevents mold growth. The volumes can be removed from freezer storage and reviewed for rehabilitation at a programmed pace.
4. Audio-visual Materials. Clean and air dry wet negatives, slides, audio tapes, video tapes, floppy diskettes, and sound recordings, if they are not warped, distorted, or totally damaged, and cannot be easily replaced.
5. Fire Damage. Rebind volumes whose only damage is charred spines and edges, if the inner text block is undamaged and the paper has not turned brittle. Otherwise, withdraw fire damaged volumes.
6. Smoke Damage. Clean with chemical sponges smoke damaged volumes, if the total number of such volumes is manageable. Otherwise, contract a smoke rehabilitation firm that specializes in library materials.
7. Withdraw. Some types of materials, when damaged, can be immediately withdrawn from the collection, with the permission of the Collection Management librarian team member. For example, in most cases withdraw paperback and other popular materials. Also, discard hardbound books that have been virtually consumed. Exceptions may be rare books or books otherwise of great value of which some usable parts may remain. Audio-visual materials of all formats should be discarded if they can be easily replaced.

#### **8.4. KEEP RECORDS**

Accurate records stating the location/disposition of materials are necessary for both salvaged and withdrawn materials. If the library's automated system is available, Automation Services will set up work stations in the salvage area. Temporary ALEPH locations or statuses will be created based on the rehabilitation method or disposition.

After retrieving materials from the disaster area and making rehabilitation decisions, record their new locations/statuses in ALEPH. If the library's system is not available, manually record the item numbers by rehabilitation category. When ALEPH is available, record the temporary locations/statuses. For uncataloged portions of the collection (manuscripts, archives, government documents, new gifts, and new acquisitions), enter provisional records in ALEPH, if available, or manually record the author, title, publisher, and date of each item.

#### **8.5. AIR DRYING**

##### **8.5.1. Books**

1. Carefully open the volume at not more than a 30 degree angle. Place wax paper between the covers and end leaves to prevent bleeding from the binding. Interleave absorbent paper towels every 25 or 50 pages. Note: If the volume has coated paper, but is still to be air dried, interleave paper towels between every leaf.

2. Place each volume on a table or large surface. Set up fans to ensure a steady current of circulating air. Stand the volume on its head and fan it open slightly. Use bricks or other supports, if necessary, to prop it open. Change the interleaved paper towels when necessary.
3. When the volume is dry, lay it flat and place weights on them to minimize distortion. Do not stack volumes that are still wet.

#### 8.5.2. Documents and Unbound Materials

Leave documents and unbound materials in their file cabinet drawers, document cases, or folders until each document can be treated individually. Do not turn the containers upside down to drain. To dry them, follow this procedure:

1. Place a sheet of polyester film on top of each wet sheet of paper.
2. Rub the polyester film gently with a bone folder until surface friction causes the wet paper to adhere to the polyester film.
3. Use the polyester film to pick up the wet paper and place it onto a piece of polyester web.
4. Gently remove the polyester film and replace it with another piece of polyester web on top of the wet paper.
5. Repeat the entire process, separating the wet sheets one at a time and interleaving them with sheets of polyester web.
6. Air-dry the sheets by placing them on flat surfaces. Fans should not blow air directly onto these materials.
7. When the papers are almost dry, flatten them by placing them between layers of blotting paper. Set weights on top in such a way to apply even pressure.

#### 8.5.3. Microforms

Keep silver halide microfilm under water and send it to a professional microprocessing laboratory as soon as possible. Wash vesicular and diazo microfilm under cold, clean water to remove mud and dirt. Then suspend it to air dry. Keep microfiche under water and send to a professional microprocessing laboratory as soon as possible.

#### 8.5.4. Tapes and Floppy Disks

Open the cassettes or sleeves to remove the tapes and diskettes. Wash them in clean or distilled water. Do not rub them to remove soil. Lay them flat or suspend them to dry. Sometimes cheesecloth may also be used to wipe off excess water. Discard the protective cassettes and sleeves.

#### 8.5.5. Sound Recordings (LPs, CDs, DVDs)

Wash in clean, cold water and wipe dry with cheesecloth. Discard the jackets and cases.

#### 8.5.6. Other Non-book Materials

Remove from their protective covers photographic materials such as prints, negatives, slides, and films while still wet. Wash off soil by immersing or rinsing in clean, cold water. Air dry

them either on a flat surface or suspended from lines.

## **8.6. PACK/SHIP MATERIALS**

Pack materials to be sent to freezer storage or a freeze drying facility according to the following guidelines:

1. Use Rescubes first. If the supply runs out, use sturdy cardboard boxes.
2. Carefully wrap books (including those that have been washed to remove mud and silt) like packages in waxed paper. Place wax paper between covers and end pages to prevent cover dye bleeding, if the covering material is dark cloth.
3. Place books into the boxes one layer deep, spine side down. If this is not possible, do not overfill or cram crates since wet books are heavy and expand considerably when wet.

Ship the packed boxes as rapidly as possible to local commercial freezing or freeze-drying services. Some firms may provide refrigerator/freezer trucks on site as part of their service.

## **8.7. RETURN MATERIALS**

When the library building has been restored, its environment has been stable for several days (see section X. COMPLETION OF RECOVERY), and the shelving areas are completely dry, clean, and sterilized (see section X. FUMIGATION, CLEANING, AND STERILIZATION), return rehabilitated materials to their shelves. Double check the materials themselves, including both air-dried and freeze-dried books, to see that pages are not brittle, that books can still be opened and read and are *completely dry*, that bindings are intact, and that no mold has formed. Many books that appeared fine while damp will have warped covers when dry. Some books may require special conservation work. Many will probably have to be rebound.

Sort in call number order those materials that are ready to be reshelved. Reshelve the materials section by section. Return the ALEPH locations/statuses to their proper values.

# **9. FUMIGATION, CLEANING, AND STERILIZATION**

## **9.1. FUMIGATION**

Fumigation is not recommended except for valuable and irreplaceable materials. A consultant may be necessary to decide on the type of fumigation appropriate to the situation. All fumigation must be done off-site by a licensed fumigator.

## **9.2. CLEANING AND STERILIZATION**

The affected area must be cleaned and sterilized whether or not mold is observed. The possibility of mold growth in an flooded area is too great not to take this precaution. Follow these procedures to ensure thorough destruction of mold spores:

1. Remove window hangings and sterilize them. Launder curtains after sterilization.
2. Remove all materials from the area except shelves and major pieces of furniture.
3. Provide additional air circulation by setting up portable fans to hasten evaporation.

4. Thoroughly wash floors, ceilings, walls, shelves, and remaining furniture with a germicidal cleaner. Include the corners, backs, and bottoms of shelves. Use disposable materials to clean and wipe to prevent the spread of contamination.

## **10. COMPLETION OF RECOVERY**

### **10.1. BUILDING INSPECTION**

Before materials are reshelfed, the building and its support systems must be tested operational. The following areas must be investigated, as appropriate to the disaster.

1. Heating, ventilation, and air conditioning system, including the temperature and relative humidity sensors.
2. Water, sewage, electricity, gas, and telephones.
3. Fire detection systems.
4. Security system.
5. Building structure.

### **10.2. BUILDING ENVIRONMENT**

Before returning materials to the affected area, the environment must prove to be stable over the course of several consecutive days. The relative humidity in all areas of the building should be between 45% and 55%. The temperature should be between 68 and 72 degrees. The Libraries dataloggers and thermometers will measure these factors. The environment must be monitored regularly (at least once a week) for no less than six (6) months.

If building or equipment repair is necessary in a shelving location, it should be completed before materials are reshelfed.

### **10.3. WRITTEN REPORT**

The Collection Disaster Preparedness Work Group writes and submits to the VCUL Administration a detailed report of the disaster and the response. The report includes:

1. Sequence of events.
2. Description of damage to library materials.
3. Cost of the recovery effort, including rehabilitation and replacement of materials costs and staffing costs.
4. Recommendations for future action.

### **10.4. EVALUATION AND REVISION OF PLAN**

When recovery operations are complete, the Work Group evaluates the recovery effort, reviews the recorders' written logs and photographs, and revises the Disaster Plan as necessary.

### **10.5. PERIODIC EXAMINATION OF SALVAGED MATERIALS**

The salvage team checks rehabilitated volumes for mold growth at regular intervals for one year after the disaster. A representative sample of volumes is sufficient to determine if mold is a problem. Examination includes inspection of the inner spine, the inside covers, and the flyleaves.

Fanning all leaves of a volume will quickly reveal if mold has grown in the textblock. Books with mold must be immediately segregated from the rest of the collection in sealable plastic bags. The preservation librarian determines whether the volume can be saved or must be withdrawn.

A moldy book will leave mold spores on whatever it touches, including adjacent books and the hands of those who touch it. Disinfecting shelves, washing hands, and carefully examining adjacent books are required procedure when mold is observed.

## APPENDIX A: EMERGENCY SERVICES

<u>Service</u>	<u>Phone</u>
VCU Fire	8-1234
VCU Security	8-1234
VCU Work Control	8-9364
VCU Office of Environmental Health and Safety	8-9834
Richmond Fire Department	8-1234
Richmond Police	8-1234
Richmond Gas and Water Service	644-3000
Ambulance	8-1234
Dominion Virginia Power	888-667-3000

## APPENDIX B: DISASTER RESPONSE CONTACTS

Name and Title

Home Phone

Work Phone

## APPENDIX C: SALVAGE SUPPLIES AND SERVICES

<u>Service or Supply</u>	<u>Name</u>	<u>Phone</u>
Building repair, electrician, plumber, carpenter, locksmith, glazier, portable generators, portable lights, portable pump, heavy duty extension cords, dehumidifiers walkie-talkies, hand trucks, pallets, and environmental monitoring	VCU Physical Plant Operations David Cooper, Academic Campus Coordinator	8-7269
Environmental Monitoring Equipment to borrow	Library of Virginia Special Collections	692-3703
Consultants	Dick Harrington, Library of Virginia Julie Arnott, SOLINET Steve Dalton, NEDCC	236-3705 1-800-999-8558 1-617-470-1010
Fans	Pleasant's Hardware	359-9381
Plastic sheeting (10'x 100')	Pleasant's Hardware	359-9381
Cardboard boxes	Mid Atlantic Bookbindery Atlantic Corrugated Box U-Haul	800-931-9400 231-4050 358-4978
Blank newsprint	Media General	649-6000
Freezer storage, milk crates	VCU Dining Services Jean Clark, Manager	8-1147

<u>Service or Supply</u>	<u>Name</u>	<u>Phone</u>
Mass freezer storage	State Records Center RC Cold Storage	236-3711 254-2653
Building plans/blueprints	VCU Real Estate Services James MacMillian, Director	8-8698
Photographer	Media Production Services Allen Jones, Photography Manager	8-9590
Chemist	VCU Chemical/Biological Safety David Jones, Assistant Director	8-4866
Exterminator	VCU Buildings and Grounds Pat Clifton	6-2241
Building dehumidification	Service Master (local) Munters Moisture Control Services	285-4909 1-800-686-8377
Freeze drying, vacuum drying, smoke removal, building fumigation and sterilization	Belfor USA Freezedry Specialties, Inc. Munters Moisture Control	1-800-856-3333 1-800-362-8380 1-800-686-8377
Collection relocation	Hallet & Sons Expert Movers	1-800-645-6683
Damage appraisals, odor removal, document restoration	Munters Moisture Control	1-800-686-8377
Smoke damage rehabilitaion, chemical sponges	Servicemaster Servpro	748-0716 740-6151

## **APPENDIX D: SALVAGE PRIORITIES**

VCU Libraries salvage priorities list collections and parts of collections in the order in which salvage teams would perform their operations. The list separates the two major branches, Tompkins-McCaw Library and James Branch Cabell Library, since only regional or national disasters would affect both. Within each branch a floor-by-floor approach defines the priorities of limited disasters and provides specific guidelines for a general disaster. The general disaster priorities focus on the branch's entire collection and resolve conflicts when a limited disaster is not limited to one floor.

### **D.1. TOMPKINS-McCAW LIBRARY**

#### **D.1.1. LIMITED DISASTER (TML)**

##### **D.1.1.1. Basement (TML)**

1. Special Collections: archives, manuscripts, and photographs
2. Special Collections: medical artifacts
3. Stacks levels A and B: bound periodicals
4. Special Collections: portraits
5. PRR: current periodicals

##### **D.1.1.2. First floor (TML)**

1. Reference: indexes and abstracts section
2. Stacks levels C and D: bound periodicals
3. Reserve Reading Room: portraits
4. Reference: major serials
5. Reference: monographs and other serials
6. Documents: state and municipal collections
7. Documents: GPO monographs and serials
8. MRS: AV materials
9. Reference: microforms
10. Circulation: reserve collection

##### **D.1.1.3. Second floor (TML)**

1. Special Collections: archives
2. Special Collections: pre-1910 imprints
3. Stacks level E: bound periodicals
4. Reading area: portraits (including painting in Collection Management office)
5. Stacks: classified general collection

#### **D.1.2. GENERAL DISASTER (TML)**

1. Special Collections: archives, manuscripts, and photographs
2. Special Collections: pre-1910 imprints
3. Reference: indexes and abstracts section
4. Stacks: bound periodicals
5. Portraits

6. Special Collections: medical artifacts
7. Reference: monographs and serials
8. Stacks: classified general collection
9. Documents
10. Media Resource Center
11. Reference: microforms
12. Circulation: reserve collection
13. PRR: current periodicals

## **D.2. CABELL LIBRARY**

### **D.2.1. LIMITED DISASTER (CABELL)**

#### D.2.1.1. Basement (Cabell)

1. Room B47: compact storage

#### D.2.1.2. First floor (Cabell)

1. Documents: state and municipal collections
3. Reference: bibliographies section
4. Reference: classification N
5. Reference: indexes and abstracts section
6. Reference: major serials
7. Reference: all other classifications
8. Documents: GPO serials
9. Documents: GPO monographs
10. PRR: current periodicals

#### D.2.1.3. Second floor (Cabell).

1. Stacks: bound periodicals

#### D.2.1.4. Third floor (Cabell)

1. MRS: recordings and compact discs
2. MRS: scores
3. Stacks
  - a. C-F
  - b. B
  - c. A
  - d. HM-HX
  - e. H-HJ
  - f. L
  - g. J
  - h. G
  - i. K
4. MRS: media (slides, flims, videos)

5. MRS: textbook collection
6. MRS: curriculum guides
7. MRS: models and kits
8. FAST collection
9. Microforms: GPO microforms
10. Microforms: patent microfilm
11. Microforms: commercial microforms
12. Microforms: serials
13. Reserves

D.2.1.5. Fourth floor (Cabell).

1. Special Collections: archives, manuscripts, and photographs
2. Special Collections: Johnson/Boswell collection
3. Special Collections: Book Art
4. Special Collections: Cabell collection
5. Special Collections: Secured collection
6. Special Collections: Clark jazz collection
7. Stacks
  - a. N
  - b. TR
  - c. P
  - d. M
  - e. Z
  - f. Q
  - g. S-T (except TR)
  - h. R
  - i. U-V
  - j. JUV & YA

**D.2.2. GENERAL DISASTER (CABELL)**

1. Special Collections
2. MRS: recordings and compact discs
3. MRS: scores
4. Stacks: classification N
5. Stacks: bound periodicals
6. Stacks: other classifications
7. Microforms: Serials
8. Documents: state and municipal collections
9. Microforms: GPO microforms
10. Reference collections
11. Documents: other collections
12. MRS: other collections
13. FAST collection
14. Reserves

15. Current periodicals
16. Room B47: compact storage

## APPENDIX E: DOCUMENTING DAMAGE

Photograph or videotape the damage for the insurance adjuster. It is not always necessary for the adjuster to be present when you begin the response and recovery phases of disaster response. It is necessary that the insurance company be aware that the disaster occurred and that the disaster response team knows what can and cannot be done within the policy's terms.

While documenting damage, check collections against the Salvage Priorities in Appendix D. Document the affected area and the surrounding areas. If using a video camera, use slow, steady pan shots and slowly increase close up shots.

Forms can also be used to document damage.

<i>External Structure</i>	<i>Type of Damage</i>	<i>Action ordered/date</i>	<i>Contracted or in-house</i>	<i>Est. Cost (PO#)</i>	<i>Action completed/date</i>
Walls					
Windows					
Roof					
Foundation					
Doors					

***One chart per building.***

***Alert security about structural damage. Open doors and windows may be guarded or monitored.***

<i>Internal Structure</i>	<i>Type of Damage</i>	<i>Action ordered/ date</i>	<i>Contracted or in-house</i>	<i>Est. Cost (PO#)</i>	<i>Action completed/date</i>
Carpets					
Ceiling tiles					
Curtains/Blinds					
Furniture					
Internal walls					
Plumbing					
Mechanical equipment					

***Indicate damaged areas on drawings of floor plans.***

***Create one chart per floor or department.***

***Contact person & number for contract work:*** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPENDIX E: DOCUMENTING DAMAGE (cont'd)

<i>Equipment</i>	<i>Type of Damage</i>	<i>Replace or repair</i>	<i>Contract or in-house</i>	<i>Est. Cost (PO#)</i>	<i>Action completed/date</i>
Copier number					
Fax number					
Telephone number					
Desk number					
Chair number					

*Indicate damaged areas on drawings of floor plans.*

*Create one chart per floor or department.*

*Contact person & number for contract work:* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

<i>Dept. or type of collection</i>	<i>Type of Damage</i>	<i>Replace or repair</i>	<i>Contract or in-house</i>	<i>Est. Cost (PO#)</i>	<i>Action completed/date</i>
Books					
Bound journals					
Microforms					
AV Materials					
Artwork					

*Indicate damaged areas on drawings of floor plans.*

*Create one chart per floor or department.*

*Contact person & number for contract work:* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Off-site storage location and contact information for collections:*

\_\_\_\_\_

## **APPENDIX F: VCU LIBRARIES FLOOR PLANS**

<http://www.library.vcu.edu/jbc/maps/>

[http://www.library.vcu.edu/tml/information/tml\\_floorplans.html](http://www.library.vcu.edu/tml/information/tml_floorplans.html)