

MICHIGAN STATE UNIVERSITY LIBRARIES

DISASTER MANUAL

Fifth Edition
2008-09

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INTRODUCTION 2008-09

Welcome to the updated fifth edition of the MSU Libraries' Disaster Manual. Since 2004 there have been some changes in the world of preservation in the MSUL, which need to be recognized. First and foremost is the creation of a new division, Special Collections & Preservation, which include the units of Special Collections, Wallace Conservation Laboratory, Binding, and Stacks Maintenance. Associate Director Peter Berg, who is also head of Special Collections and Acting Preservation Librarian, heads the division. As such, he is chair of the Disaster Recovery Committee, a library wide committee committed to the planning for and response to any water emergencies in the MSUL. To this end the Disaster Manual has been updated thanks in large part to the work of Nora Carr. Supplies have been updated, organized, and visits have been made to Branches to review response to water emergencies. Access to the Disaster Manual is now available electronically on the MSUL Intranet as well.

The Disaster Recovery Committee works in close partnership with the MSUL Facilities to help prepare the MSUL in case of emergency.

INTRODUCTION 2004

The fourth edition 2004 of this manual deserves an updated introduction. Since the last introduction we have had considerable turnover in staffing. The MSU Libraries no longer has an archivist on staff, nor do we presently have a preservation librarian. The coordinator of the disaster recovery committee is now a rotating chair from someone who has been on the committee for at least a year. As the Assistant Director for Access and Preservation I have taken the responsibility for updating and improving the well done manual that Dorothy Frye left when she retired. Working with the committee coordinator we have added new sections to the plan including updated maps of the branch libraries, which includes the remote storage facility. This storage is located in Lansing and in the case of a fire would be served by the Lansing Fire Department. Fortunately the storage facility is extremely close to a fire station, literally at the end of the driveway. Another key section is the new Special Collections mitigation appendix. Working with Peter Berg, Head of Special Collections, we have developed a plan for safe guarding the most valuable materials should there be an eminent threat of flooding. By the end of the year 2004 all of the Main Library building will have smoke alarms to reduce the damage of fire and an earthen berm to reduce the threat of flooding from the Red Cedar River. In 2004 we will add the position of collections conservator and that person will join the disaster committee. The addition of a collection conservator lab in Giltner Hall is also an addition to the branch libraries and remote storage section. In 2002 a systems plan for disaster recovery of data and software including safe duplicate storage was also developed. While not a part of this written plan it is useful to document that plan exists. These improvements both to this disaster plan and to the facilities should help to prevent or mitigate damage to our collections.

Jeanne Drewes
Assistant Director for Access and Preservation

INTRODUCTION 1999

The first edition of this manual was compiled in 1985 by the Disaster Preparedness Project Team under the direction of the Libraries' Preservation Committee. These librarians were committed to the protection and preservation of the MSU Libraries' rapidly growing collections as well as protecting staff and patrons in the event of fire, tornado, or other disaster. It was the first time an organized initiative was taken in the Libraries for the development of broad policies and procedures for disaster planning and emergency response, although steps had already been taken to formulate evacuation plans.

Since that time, new technology has continually shaped much of the library operation, bringing with it new challenges and new solutions. Disaster planning now requires an array of special methods for handling electronic media and equipment, for example, and at the same time, advances in the field of disaster management have brought new storage and salvage techniques. The 1999 edition of the *MSU Libraries Disaster Manual* has been updated to include these methods and sources of information, assistance, and supplies needed for disaster response.

This manual contains both general and specific instructions for responding to emergencies in the MSU Libraries. The appendices include policies, procedures, emergency phone numbers, supplies, training materials, and individual branch library disaster plans.

Dorothy T. Frye
Preservation Archivist
for the MSU Libraries

INTRODUCTION 1985

In recent years numerous techniques for the salvage of materials damaged by fire and water have been developed and tested. Libraries have recognized the need to establish programs and procedures to aid in disaster prevention and to help minimize the effects of disasters when they do occur.

To this end, the Preservation Committee established a sub-group: the Disaster Preparedness Project Team. The team was given a charge to identify the nature of potential disasters that might befall the Library and to make a projection as to the extent of the potential damage that would ensue. The Team was directed also to determine the current response capability of the Library and to recommend specific actions and programs that the Library could adopt. As a part of its report, the Team was instructed to prepare a disaster manual for use by the Library staff.

The Disaster Manual contains detailed procedures for handling disasters. It is to be used in conjunction with the Disaster handbook, which details the immediate steps to be taken when an emergency situation is discovered.

I. DISASTER PREVENTION AND PREPAREDNESS

A. GENERAL OBSERVATIONS

1. PERSONAL SAFETY OF STAFF AND PATRONS MUST TAKE PRIORITY OVER ALL OTHER CONSIDERATIONS.

2. General library-wide priorities can be determined but they may have limited applicability depending on each given case.

Catalog records that are not backed up offsite should receive top priority when endangered.

Second priority should be given to materials that represent collection strengths (not just MSU interests, but in areas where MSU Libraries owns the regional collection, e.g., Africana, Vincent Voice Library, Turfgrass Information Center, Canadian Documents Collection)

3. There are other elements to consider when setting priorities. The appropriate subject specialist(s) and area coordinator(s) should be aware of the elements to consider when setting priorities for salvaging materials, and of their implications; and should work with the Recovery Coordinator in determining and maintaining priorities.

- Relative importance of collections housed in area.
- Relative cost and feasibility of replacement (in general terms only).
- Print vs. non-print materials.
- Preponderance of coated or non-coated paper.
- Preponderance of monographs or serials.
- Relative “critical time” for different materials, under different circumstances.

4. By evaluating all these elements, in light of the nature, extent and degree of damage as well as environmental conditions, the Disaster Response Team should be able to determine relative importance, degree of imperilment, and “critical time” for various segments of material in the affected area and determine what actions to take and in what order.

5. Finally, emergency action priorities must be determined at the time and on the scene of a disaster. These priorities will be general in nature. Depending on the quantity of material involved; item-by-item decisions can usually be made only after materials are stabilized.

B. DISASTER PREPAREDNESS

The following precautions should be taken to minimize or prevent disaster:

1. Post floor plans on each floor, showing location of emergency exits and Stairways, fire extinguishers, and smoke alarms.
2. Keep fire doors closed.
3. Keep building clean. Wastebaskets should be emptied regularly. Building should be cleaned regularly (ideally every week).
4. Unplug all non-essential machines at night and on weekends, if practical. It is Advisable to unplug terminals when power failure occurs, unless protected against power surge.
5. Have fire extinguishers inspected regularly to insure that they are charged and Operable.
6. Have staff participate in fire drills and review emergency procedures twice a year
7. Ensure that exits are not blocked.
8. Handle hazardous materials properly and in restricted areas.
9. Shut all windows at night.
11. Refrain from storing books on floors or under windows.
12. Replace supplies in disaster supply closet as they are used.
13. If smoke alarms are battery-powered, units should replace batteries with fresh ones twice a year and keep a record of when this is done.
14. Be aware of basic procedures to follow when emergencies occur.

C. DISASTER RECOVERY

Disaster Recovery Coordinator

The Disaster Recovery Coordinator for the Library will normally serve as the primary coordinator in the event of an emergency or disaster that affects or endangers the Libraries' collections.

The Disaster Recovery Coordinator:

- Is responsible for calling the members of the Disaster Response Team and works closely with the Head of Facilities Support (Jim Hensley) in acting as quickly as possible to assess the damage and direct clean-up operations.
- Is responsible for maintaining inventory records of disaster supplies and reordering when necessary in order to maintain recommended stock levels.
- Is responsible for communications, summary reports, evaluations, and follow-up assignments.
- Assists branch libraries in responding to emergencies affecting their collections, by providing manpower, supplies, and advice, as needed.
- Calls monthly meetings of the DRC to review procedures and update recovery skills knowledge.

II. DISASTER RECOVERY COMMITTEE (DRC)

The DRC shall be composed of members from the following areas of the Libraries:

A. Members:

Disaster Recovery Coordinator
Collections Conservation Conservator
Collection Conservation Technician
Facilities Representative
Branch Library Representative
Main Library Representative
Circulation Representative

B. Responsibilities and priorities:

1. In the event of a disaster affecting the collections, the first committee member to arrive should immediately take charge.
- 2) Appoint a person to secure the perimeter from unauthorized personnel.
- 3) Set up a communications and command station.
- 4) Assess the scope of the salvage problem.

- 5) Formulate a plan of action and determine immediate supply needs and action priorities. The salvage team will have the authority to appropriate supplies such as fans, trucks, etc., from all areas of the library.
- 6) Delegate responsibilities.
- 7) Appoint a person to meet and direct arrivals of supplies and personnel.
- 8) Set up teams with leaders, to deal with books.
- 9) Train volunteers on the spot.

III. STAFF TRAINING

The Circulation staff is trained to respond to emergencies of all kinds and to evacuate the building if necessary. Staff and patrons in the building are advised of emergencies through the public address system. The Circulation staff notifies the Main Office and Branch Libraries through a telephone tree system when there are severe weather conditions occurring.

Special workshops should be held at least once a year for staff so they may be apprised of emergency and evacuation procedures that have been instituted or changed. A disaster recovery workshop should also be offered at least every other year.

IV. Emergency Facilities and Supplies

A. OVERVIEW

1. Overview

The Main Library keeps a supply of emergency materials and equipment sufficient to deal with small or moderate disasters. However, for a larger disaster, additional equipment and supplies may be needed.

For all emergency supplies and services, on campus or off, make initial contact by calling Physical Plant at 3-1760. After hours or on a weekend contact the University Operator who will direct the call. The Physical Plant can supply from its own inventory such items as

Generators	Liquid vacuums
Trucks	Dehumidifiers
Water hoses	Extension cords
Water bank trailers	Freezer and saran wrap
Plastic garbage bins	Pedestal fans
Portable tables	Portable pumps
Forklifts	Plastic crates-stackable
Pallets	Milk crates may be available also

The following are contacts for often-needed services or supplies in a water disaster.

2. Frozen Storage:

Main Library, WG11
16.6 cu. ft upright freezer. Holds 50-100 books

Food Stores (Service Road)
270,000 cu. ft at -10 degrees F with moisture evacuation systems. Freezer space and plastic crates are dependent on availability.

Contact: Marta Mittermaier at 5-0273
Or
Don Swanson at 5-0279

Biochemistry Building (on Wilson between Bogue and Farm Lane)

Freezer with capacity to hold 100-200 cartons at -20 degrees F. Preferable if quick freeze is desired and if quantity is small. Contact Joyce Robinson at 3-0813

3. Crates:

Target Store-4890 Marsh Rd, Okemos 347-0700 "0"
Fredon Handling 3590 Schlee, Jackson 1-800-952-0642
Cardboard Boxes-lined with plastic

B&J Moving 484-1421
Willing to get a large supply for us in an emergency.

Stevens Worldwide Van Lines 322-2035
Have boxes and sell liners

4. Newsprint:

Inco Graphics, 222 Ash, Mason 676-5188
End rolls of newsprint available

5. Freeze Dry Chambers:

Food Science Department 5-8474

University of Michigan-Conservation Lab
Contact Shannon Zachary, 734-763-6980

Document Reprocessors (<http://www.documentreprocessors.com/>) 1-800-437-9464

B. Disaster closet supplies

Disaster supplies are stored in the Preservation Projects Office (WG-11) Equipment which may be useful in a disaster is kept by the Library Stock Clerk. A disaster barrel containing basic supplies is kept in each of the following areas within the Main Library building: Special Collections, DMC and the Beaumont Supply Closet that is part of Circulation.

The following is a list of supplies and recommended amounts for a well-prepared disaster response.

<u>Item</u>	<u>Size/Amount</u>
Adhesive tape (mark able)	2 rolls
Barrel (55 gal)	1
Book Holders (cardboard)	10
Brooms	2
Caution Tape	2 rolls
Charcoal Briquettes	1
Clipboards	2
Cloth towels	1 box
Cord (clothesline type) 50 ft	6
Disaster Wheels	6
Dustpan	
Extension cord 100 feet	2
First Aid Kit**	1
Fishing Line	5
Flash light-rechargeable	3
Freezer wrap	6 rolls
Garbage bags-55 gallon	10
Absorbent water dams	2 cases
Gloves (Work)	12 pr.

Gloves (latex)	2 boxes
Gloves (rubber)	12
I.D. stickers (volunteers)	50
Kitty Litter	1 bag
Knife-utility with blades	6
Lab aprons	5
Lab coats	5
Markers (permanent, lg)	1 box
Masks	2 box
Metal Trays	10
Mops (sponge)	12
Newsprint	1 large box
Note pads Lined 8 1/2 "x 11"	2
Packing Tape	5
Pails - 10 qt.	2
Paper towels (single fold)	2 cases
Pencils -sharpened	2 box
Pens	2 box
Pink Ties	1 box
Plastic bucket with lid 1-5 gal.	3
Plastic drop cloths 12'x 12'	4
Plastic sheeting	4
Post-It Notes	5-10
Rescubes (collapsible plastic boxes)	100
Rubber gloves	5 pr.
*Scissors	5
*Sponges	12
"Sav-a-rap" master size (6000/case)	1case
*Twine	1

Utility light	1
Wastebaskets (plastic, seamless 10 gal)	3
Wax paper—see Sav-a-Wrap	1 case
wet/dry vacuum	1
wet/dry vacuum replacement filter	1
Wonder Sponge	5
Zip-loc plastic bags, (large size)	2 boxes

****First Aid Kit: suggested contents**

First Aid instruction book
 First Aid adhesive tape
 Sterile gauze pads and bandages
 Band-Aids in varying widths
 First Aid cleansing wipe for cleaning minor wounds
 Peroxide (disinfectant)
 First aid cream

C. Disaster Barrel

Disaster barrels are kept in each branch library as well as in strategic areas in the Main Library, including Special Collections, Circulation, DMC and the Preservation Projects Office. These barrels contain the following items.

Contents:

Bucket with lid-5 gallon
Clipboard
Disaster Manual & Disaster Response Wheel
Fishing line
Flashlight- self-charging
Garbage bags—to fit trash can
Gator Tails-4
Gloves-cloth
Gloves-rubber
Knife with blades-utility
Lab Coat
Masks
Mop-sponge
Pad of lined paper
Pencils-1 dozen sharpened
Pens-2
Permanent markers -2
Scissors-1 pr
Sponges 2
Barricade Tape-“Do Not Enter”
Packing Tape-water resistant to tape sheeting
Paper towels-2 rolls
Plastic sheeting-box
Post-It notes
Wastebasket
Wax paper-1 box
Zip-loc bags

V. EMERGENCIES AND DISASTERS – RECOVERY PROCEDURES

In all emergencies that affect the condition of the library collections, notify the Disaster Recovery Coordinator immediately. If that person cannot be reached, call any member of the Disaster Recovery Committee, whose members have been trained in handling wet or otherwise damaged library materials, and have access to necessary supplies, equipment, and services. They are on call for any emergency, and will take charge of recovery operations as soon as they arrive on the scene.

The following describes recommended procedures and techniques used in such emergencies.

A. WATER DAMAGE

Wet paper is extremely fragile and may tear at a touch. Any wet material should be handled as little as possible.

Moist paper combined with warmth provides an ideal condition for the growth of mold. In order to prevent mold from developing it is absolutely essential to stabilize water-damaged materials within 48-72 hours. Weather is critical. When it is hot and humid 48 hours is the maximum safe period. When weather is cold a bit more time can be taken, but should not go beyond 72 hours. Mold will not grow without warmth and exposure to air. Damp books are even more susceptible to mold than wet ones.

All books, even those apparently dry, should be removed from the affected area and examined carefully. They should be stored in an area with good air circulation, air conditioning and with low humidity. All books should be thoroughly dry and be checked for mold before they are returned to their places.

As soon as area has been declared safe by the Fire Department, MSU Police Officer, or Library administrator:

1. Secure the area, cordoning off the affected ranges in order to prevent possible injury to staff and patrons.
2. Stabilize Environment
 - In winter open windows and doors to lower temperature as much as possible but not below 32 degrees F. Have Physical Plant shut off heat if possible. Circulate air with fans.
 - In summer request Physical Plant to lower temperature as much as possible. Circulate air with fans.

- Try to lower humidity as rapidly as possible. Bring in de-humidifiers. Mop up water as soon as possible after source of water damage has been located and incoming water stopped.
3. Survey extent of damage. Make notes describing the scene, including number of ranges and approximate number of books affected, condition of the stacks (braced or leaning). This is a good time to photograph the scene if a camera and film are available.
 4. Formulate a plan of action and determine immediate supply needs and action priorities:
 - Delegate responsibilities
 - Appoint a person to meet and direct arrivals of off-site supplies and personnel
 - Appoint a person to secure the perimeter from sightseers
 - Set up a central communications post
 5. Make arrangements for equipment and supplies
 6. Make arrangements for additional staff to help in removing wet materials from area
 7. Retrieving materials
 - If there has been a fire, warn staff to watch for hot spots. Always feel something before opening. If hot, call a fire fighter.
 - Never retrieve items if it means endangering life or other material.
 - Establish a location for wrapping and packing wet materials into crates or boxes. Move tables into area to provide work surfaces. Cover tables with plastic.
 - Establish a human chain from the location of books to the wrapping and packing site. If distance is too far for human chain, establish book truck convoys to move materials (cover trucks with plastic).
 - A team member should be at the head of the chain. This team member should make rough priority and sorting decisions regarding treatment to follow:
 - 1) **Separate coated from non-coated materials.**
 - 2) **Separate books that are so wet that they need interleaving from damp books that can be air-dried.**
 - 3) **In a disaster involving hundreds of volumes the decision to freeze or air dry may best be made here, directing books to two separate processing chains.**

- The salvage team leader should not become personally engaged in tasks, which do not permit movement from place to place.

8. Priorities for moving material from area.

- If area has previously established priorities, follow them.
- If books have fallen from shelves and are lying in water, retrieve these first. Water on floor should be removed as rapidly as possible to reduce humidity.
- Remove coated books before others.
- Remove any boxes of materials from floor.
- Remove wettest books next. This will also aid in reducing humidity.
- Soaked carpet should be removed promptly. If carpet lies under shelving ranges it must be cut.

9. Precautions

- Books that are to be frozen should be kept closed to minimize warping.
- Books with coated paper should not be allowed to dry out until they are interleaved or frozen. It is better to allow them to stay wet if they cannot be stabilized promptly.
- Do not empty cardboard boxes if they are very wet. Freeze as is.
- Always remember that reducing the cost of future restoration must be one of the top priorities of the salvage operation.

10. Washing muddy or dirty books. (This is rarely possible because of lack of time).

- No untrained person should ever be allowed to wash water-damaged materials.
- Never wash books if time is critical.
- Never UNDER ANY CIRCUMSTANCES wash material that contains water-soluble materials such as non-permanent ink, watercolors, tempura, etc.

B. FREEZING MATERIALS

1. Suggested priority for freezing

- a) Materials that have developed mold
- b) Leather and vellum bound volumes
- c) Manuscripts and art on paper stock
- d) Materials on coated stock
- e) Journals & monographs on non-coated stock

2. Purpose of Freezing

- Stabilization by freezing buys time. After freezing, decisions can be made about determining which items to replace rather than restore.
- Freezing stabilizes water-soluble materials, such as inks, dyes, etc.
- Freezing is not a drying method, nor will it kill mold spores, but it will keep spores dormant.

3. Packing materials for freezing

- If cardboard boxes are used, line with plastic or freezer paper.
- Wrap each book in freezer paper to prevent items from sticking together. Leave the tops and bottoms of books unwrapped to facilitate drying.
- Books should be wrapped and packed in the best shape and condition possible. However, if misshapen and warped item cannot be put into better shape without damage, wrap and freeze as is.
- Pack books SPINE DOWN, or on the side, never fore-edge down. Do not pack material too tightly.

Packaged material waiting transportation to freezers should be kept at 4 degrees F. Or below in order to prevent mold growth.

4. Shipping Frozen Materials

- a) Load boxed material onto wooden pallets or skids if available for ease in transportation and to provide air spaces under boxes. Trucks should be backed up to loading dock.
- b) Load material in truck so that air can circulate between containers.
- c) Include instruction that materials should be frozen rapidly at the freezer facility to -20 degrees F. or below to create the smallest possible ice crystals.

5. Delayed Salvage

a. Unsafe Areas

If an area that has been declared unsafe to enter contains material that has been previously identified as being especially vulnerable to destruction, or is extremely valuable, it may be desirable to persuade the fire marshal or Physical Plant personnel to provide a SAFE means of access to remove these materials even though the area is still considered hazardous.

b.Mold

If access to an area has been delayed for several days, mold development may already have started. If there is a large amount of material it may be necessary to use fungicidal fogging. A professional fumigator should do fogging.

C. PROCEDURES FOR HANDLING SPECIAL MATERIALS

1. Photographs, Slides, Microforms

Do not freeze microfilm, microfiche, or color slides unless they cannot be dried professionally. If material has to be frozen it should be done as rapidly as possible.

Seal black and white negative film and prints in polyethylene bags and place in non-metal garbage cans under clean, cold running water until material can be shipped. Material can be left under these conditions for up to three days before the emulsion will separate from film backing.

Eastman Kodak Company provides emergency service for cleaning and drying: (716) 724-4000. <http://www.kodak.com>

Color slides and color negatives and positive film must be sent to Kodak within 48 hours. (Eastman Kodak, 343 State Street, Rochester, NY 14650)

Materials should be shipped to laboratory in cold water. For a trip of several hours it may be necessary to add ice (not dry ice) to keep it cold.

2. Framed photographs

Remove from frames at once so photographs will not stick to frames. Lay photos between blotters to dry.

3. Single sheets (Paper)

Do not attempt to separate single sheets. Normally frozen "as is" and separated later after vacuum or freeze-drying.

DO NOT ATTEMPT to sponge off mold.

4. Materials in drawers and boxes (including archival storage boxes).

Do not turn wet manuscript boxes upside down to empty, as the contents could stick to container and be torn.

If contents are thoroughly wet, freeze contents and containers as is.

If materials are damp and will not be damaged by handling, repack into dry boxes before freezing. If in doubt, freeze boxes as found.

5. Phonograph records

Remove discs from wet or damaged jackets. Always hold disks by their edges.

Wipe discs gently with a soft, lint-free cloth and place in a rack to dry in a low dust environment. If discs are heavily soiled, wash gently in clean water (room temperature or slightly cooler) without any soap added. Air dry. Do not use paper towels. Take care that labels are not lost or damaged.

6. Audio and Video Tapes

Rinse soil and mud off tapes. Dry within 48 hours if they include paper boxes and labels. Otherwise they can stay wet for several days.

Do not freeze.

Do not touch magnetic media with bare hands.

Handle open reels by hubs or reels

Air dry. Preservation copying may be necessary.

Keep all labels and identifying marks with the tapes.

7. Floppy disks

Avoid touching magnetic surfaces of diskettes.

Keep wet and pack immediately. Pack vertically in plastic crate or tub.

Air dry as soon as possible

8. Compact disks

Air-dry disks immediately. Do not scratch the surface.

If disks cannot be dried immediately, pack vertically in crates or cardboard cartons

9. Parchment or Vellum

Immediately air-dry, vacuum-dry, or freeze-dry

Moisture causes these materials to cockle. Seek advice of professional conservator regarding flattening.

D. DRYING MATERIALS

- Costs involved with drying and restoring materials are not always justified if material is in print and is replaceable. Decisions should be made at this point before drying.
- After drying, further decisions may be made whether replacement or restoration will be needed. Replacement if possible is nearly always cheaper than restoration.
- If the water damaged material was infected by mold before freezing, it should be sent to a commercial disaster recovery company to be sterilized by fogging with a fungicide.

Drying Techniques/Options

1) Freeze-drying and vacuum drying

Freeze-drying causes the water in materials to pass from the frozen to the vapor phase without going through the liquid phase. The moisture becomes volatile and mixes with air. Air is circulated to remove the moisture. Vacuum-drying generally is understood to mean that frozen liquid passes through a liquid state before it is removed by air absorption. Consult commercial disaster recovery companies.

2) Air-drying

The drying should be done in a large open workspace. There should be constant air circulation and dehumidification.

Temperatures should be maintained at 65-70 degrees F. (maximum) with a relative humidity of 35-45% (maximum). Frequent readings of temperature and humidity should be taken. Moisture content in the drying materials can also be measured. Wet wrappings and blotting materials should be removed from the room as fast as possible in order to keep the humidity down.

If the books are contorted, they should be remolded into shape before drying. Wet materials should be separated into small units so that air will flow freely around them. The smaller piles will also prevent crushing of the materials on the bottom.

If the books are dirty, they should be cleaned.

Books can be weighed at the start of the drying process in order to determine the amount of water that has been absorbed.

Drain books by standing them on their heads (less strain on the spine) with their covers spread sufficiently to make them stand up. Styrofoam or foam rubber supports can be used to help the books stand. Their pages should not be fanned. Each book should stand on a piece of absorbent paper. These should be changed frequently and removed from the room.

When dried sufficiently to be opened without damage, the book may be interleaved with absorbent sheets.

When opening the books, take considerable care, keeping the opening shallow at first. Interleaving materials and absorbent papers under the books should be removed and changed often. After the interleaving has been changed a few times, the books will be almost dry. At this point they may be laid flat under moderate pressure to reduce cockling and warping.

If desired, partially dry books may be hung over nylon lines to finish drying. (They should not be hung when very wet because they will be damaged further). Hanging will help to restore the spine to its original shape. Spines tend to become concave due to the swelling of the leaves by water and the subsequent interleaving process.

Never Stack Drying Books

Books should not be returned immediately to the shelves. They should be shelved in a holding area with 35-45% humidity, separate from the stack area. This area should be well ventilated and air-conditioned, with a temperature not to exceed 65 degrees F. Temperature and humidity must be adjustable. There, the books can be inspected for further repair, rebinding, or restoration needs. Random inspection for mold infestation can also take place at this time. Newly - dried materials should never be packed in boxes unattended for more than a day

or two. Books should remain in the holding area at least 6 months before returning them to the main stack area. During this time, temperature and humidity can be slowly changed to duplicate stack conditions. The books should be carefully inspected before their return to the stacks.

The shelves should be thoroughly washed with disinfectant, including the corners, bottoms, and sides of the shelves.

Do not move materials back until the shelves are completely dry and the temperature and humidity have been restored and maintained for several days. Then, the books may be re-shelved in the collections.

3. WASHING METHODS FOR MUDDY BOOKS

This method requires a large room with plumbing and adequate drainage.

- Install hoses feeding to bottoms of 6-8 (20 gallon) plastic garbage cans to:
 - a. Keep water running
 - b. Keep dirt overflowing out
- Keep books tightly closed (do not open books - they will fall apart)
- Gently sponge under water (daub - do not rub or brush - this will only drive dirt deeper!)
- Move books from can to can in successively cleaner water
- Spray with fine stream of water at end of procedure
- Press out water with hands (do not use mechanical presses)
- Dry or freeze

NOTE:

Do not attempt this method with open volumes, manuscripts, books printed on coated paper, art on paper, or photographs.

The washing of materials containing water-soluble components, such as inks, water-colors, tempera, dyes used in certain maps, and the like, should not be attempted under any circumstances. Seek the guidance of an expert.

4. FOLLOW-UP

A post-mortem should be held to determine what went right and what went wrong. Reports should be written and perhaps even published in order to help others learn from our mistakes. If the plan needs to be revised, this should be done. Supply sources and facilities should be evaluated and, if inadequate, new ones should be found. Used supplies should be replaced. Each person should be thanked for his/her part in the operation.

Site inspections should continue periodically for a year to be sure that no mold has begun to grow.

E. COLLAPSED BOOK SHELVES

1. CLEAR AREA

Clear the area of staff and patrons near collapsed stack to insure personal safety. Rope off area immediately with yellow "caution" tape (available from Circulation, 5-2333).

If anyone was injured immediate steps should be taken to secure medical aid. Call 911 and then Circulation (5-2333) for assistance.

2. NOTIFY THE FOLLOWING:

- DRC Coordinator or member of DRC
- Stacks office/department having responsibility for the maintenance of the book stacks concerned.
- Facilities Department
- Collection Area Coordinators for the affected stacks.

TAKE NO FURTHER ACTION UNTIL A MEMBER OF THE DISASTER RECOVERY TEAM ARRIVES TO DIRECT RECOVERY OPERATION.

3. METHOD FOR REMOVING BOOKS FROM COLLAPSED STACKS

- Rope off the area around the collapsed stack(s).
- In the case of a totally collapsed stack do not rush into action. Take time to plan and seek advice. First rescue books that are lying in positions, which

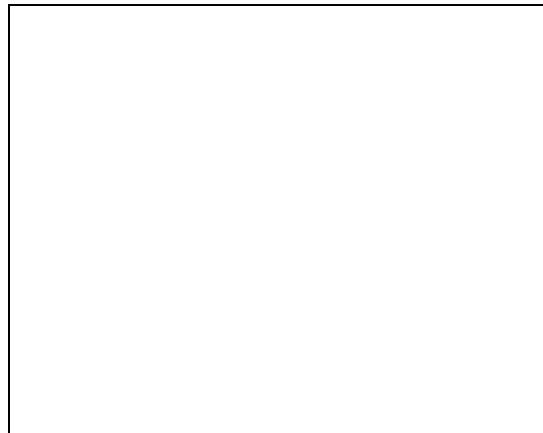
place them in stress. Work slowly enough to avoid further damage. See following page for illustration.

- In the case of a partial collapse, immediate action is needed.
- Do not expose yourself or others to any danger of personal injury.
- If the leaning stack can be firmly braced with something readily at hand, do so. But don't waste time if the means to do this aren't immediately at hand. Do not brace against another stack.
- First pick up any fallen books that are in the way.

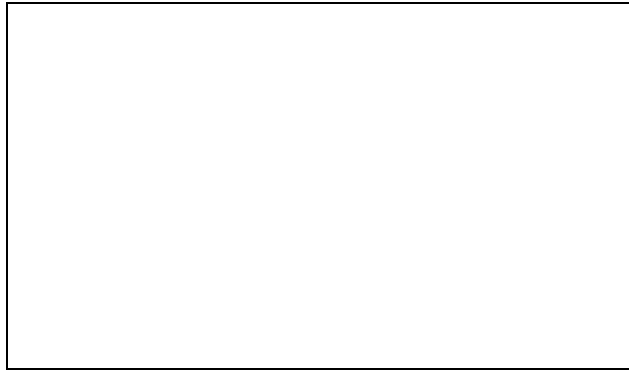
- Place a narrow table or chair along side the collapsing range on the side opposite the direction of the sway * (See below). Work from on top of the table or chair, and pass books to a human chain.
- Lighten the weight which is pushing the stack in the direction of its lean or sway by removing books in this order:

1. Top shelves first

2. Shelves on the side of the sway first ** (See below)



4) Shelves opposite the direction of the lean first * (See below)**



- Books, which are wedged, are helping to keep the range from total collapse. **Remove these last.**

VI Non-water Emergencies

A. FIRE

Fire drills are conducted periodically to ensure that staff is familiar with emergency procedures. Tornado drills are advised early in the spring. Anyone discovering a fire should:

1. PULL THE NEAREST FIRE ALARM

Sounding the fire alarm means evacuate the building immediately.

Clear the area immediately. Each department is responsible for clearing its own area. Do not take the time to do a phone tree relay.

In the process of evacuation, close doors upon leaving the building. This will aid in isolating the fire.

2. PHONE FOR HELP IMMEDIATELY – Call all of the following, in this order:

POLICE/FIRE DEPARTMENT	911
CIRCULATION	355-2333
MAIN OFFICE	432-6123 x143

Report the following information:

- YOUR NAME
- BUILDING (e.g. Main Library)
- LOCATION OF THE FIRE (e.g. West/East Wing, floor or room number)

3. FIRE EXTINGUISHERS

Staff and patrons should not try to extinguish a fire unless the fire is small and they are trained in operating the fire extinguisher.

When the fire extinguisher is operated, a continuous stream of pressure expels the extinguishing agent. Do not throw the fire extinguisher into the fire--it may explode.

4. SMOKE DETECTORS

Smoke detectors are located throughout the Main Library building. These smoke detectors, when activated, sound an alarm. The smoke detectors are directly hooked up to the main building alarm, which signals DPS. DPS will then notify the FIRE DEPARTMENT. **All fires, however, should be reported immediately to DPS by calling 911.**

5. SUPERVISOR RESPONSIBILITY

Each unit supervisor will establish procedures to be followed, communicate these to the staff, and post. If an emergency arises after regular business hours, Circulation should be notified immediately (355-2333).

6. ELEVATORS

Elevators should not be used in a fire emergency, as the heat and intensity of the fire could disable the equipment.

7. WORKING WITH FIRE DEPARTMENT

Once the Fire Department has arrived, the Building Emergency Coordinator** should contact the Fire Ground Commander in charge to indicate the importance of certain areas and materials which are/may be irreplaceable or fragile. This may enable the fire department to limit water and smoke damage by using tarp where they can.

After the Fire Department has given permission to re-enter the building, every effort should be made to contact the Director. [See the Lines of Authority page](#)

**Different individuals serve in the capacity of Building Emergency Coordinator, depending on the time of day. They are:

- Head of Facilities Support (Jim Hensley)
- Circulation desk supervisors
- Late night building supervisor

B. TORNADOS

When severe weather conditions develop, Circulation monitors a weather alert radio and informs library staff and patrons through the use of the public address system when emergency procedures are to be activated. Each unit should have tornado procedures posted in a visible place for staff and patrons. These procedures should include locations of safe shelters and directions for moving to those shelters.

Staff should assist in getting patrons to the safe areas quickly and calmly.

See “Tornado Warning Procedures” for detailed instructions (Appendix B)

C. POWER FAILURE

1. Notify the Circulation Desk (355-2333), which will contact the Main Office (432-6123 x143) during office hours and report the situation. If the Main Office is closed, Circulation will call DPS for information on the possible duration of the power outage.
2. Safety
In the case of a power failure, the first concern of the staff is for the safety of the people in the library. If the power failure is prolonged, standard evacuation procedures should be followed. Elevators, restrooms, and stairwells should be checked for stranded persons. All stacks should be closed once people have been evacuated.
2. If the failure occurs during daytime hours, there may be sufficient natural light to continue Library operations. The library also has an emergency power generator, which operates lights and computer systems. However, in many cases during daylight and in all cases at night, the Library should be evacuated if the failure is expected to continue for an extended period of time. Each department will be responsible for clearing its area and floor, if necessary.
3. If the failure is to be extended, the Director of Libraries should be notified. It is his/her responsibility to make the decision on continued Library operations or to close the building.

[Link to Lines of Authority page](#)

5. Each individual library department and each floor of the library should have auxiliary lighting to be used in case of a power failure, even if this lighting is only in the form of flashlights. Staff members should be familiar with the locations. Plug-in flashlights have been installed throughout the library.

6. Elevator problems

Call Circulation (355-2333), which will notify the Main Office and ask them to call Elevator Maintenance, Physical Plant (353-1760). After office hours, Circulation should dial '0' for the campus operator to report all emergency situations. For the safety of staff and patrons, Circulation should act immediately to halt use of the affected elevator by posting warning signs on elevator door.

In the case of a power failure, elevators throughout the building may not be operable. The West wing elevators do not contain emergency lighting. Any attempt to remove people from elevators should be done by Elevator Maintenance personnel **only**.

D. BOMBS AND BOMB THREATS

When notified of a bomb threat, the Building Emergency Coordinator (see page 17) will contact DPS immediately to report the incident and ask for direction on whether to evacuate the building or not. If we are told to evacuate the building, the fire alarm is pulled and staff and patrons are evacuated and moved away from the building as soon as possible.

1. Every incident should be taken seriously.
2. Call 911 immediately.

If Circulation or any other unit within the Library receives a phone call or is informed in some other way that the Library is endangered by an explosive devise, staff should call 911 immediately

When calling 911 you should report all information you have regarding the bomb threat call. DPS will instruct you what to do next. It is likely that the building will have to be evacuated and that police and fire units will be dispatched to our building.

3. Notify Circulation: 355-2333
4. Evacuate building if instructed. Re-enter only when the all clear is given.

E. LEAKS

Do not enter an area if there is any danger of electrical shock. Report all water problems to Circulation (355-2333) and the Main Office (432-6123 x. 143). Remain in the vicinity of the problem and keep others from entering any dangerous or flooded area.

F. TOXIC SPILLS

Toxic spills in the Library are rare but can pose a serious health risk in some cases. Report all such spills to Circulation (355-2333) who will contact the Main Office or the Office of Radiation, Chemical and Biological Safety (355-0153), and request a clean up.

Vomit and normal spills of food and drink should be reported to custodial staff (x214) or Circulation.

G. DISRUPTIVE BEHAVIOR

Some general hints for dealing with disturbed patrons:

1. Remain calm.
2. Repeat your request if necessary.
3. Do not argue with outrageous remarks.
4. Be explicit.
5. Stay in control of the situation; do not allow patron to manipulate you.
6. Avoid humor or personal remarks.
7. Alert other staff members when strange behavior occurs.
8. Be considerate; listen to whole explanation even if you have heard it a thousand times before.
9. Offer a choice of actions or alternatives if you can.
10. Be a team player when confronting a disturbed patron: get help. Do not try to handle it alone. Ask another staff member to watch the person while you call for help.
11. Give support to another staff member who has had to confront a disturbed patron.
12. Never try to restrain or detain a patron forcefully. Do not touch a disturbed patron.

(Adapted from "Twelve Commandments," by Marianne Steinberg, Social Worker at the Crisis Center, San Francisco.)

Call Circulation (355-2333) for assistance as soon as possible.

H. THEFTS AND DESTRUCTION OF LIBRARY MATERIALS

1. THEFT OF PERSONAL PROPERTY FROM PATRON IN LIBRARY

- a. Be supportive and helpful to the patron, but do not say anything, which could be construed that the Library has any responsibility for the loss.
 - b. Call DPS (5-2221) for the patron and have him/her report the loss. DPS will take a limited amount of information over the telephone and will send an officer to the Library to take a full report from the patron.
- C Only the victim can make a report at DPS, but after talking with a staff member, if the victim declines to notify DPS, the Library staff member should have the patron fill out a DPS incident report. Note on the form that the victim did not report it to DPS.

2. DESTRUCTION OF LIBRARY MATERIALS (examples: writing in books, cutting out pages, damaging furniture, using library materials destructively, etc.)

1. If action seems to be accidental, unintentional, or fairly minor, tell patron to stop. If patron is cooperative, and this is a first offense, you may want to handle the problem locally, i.e., explain to the patron that he/she will have to pay for the replacement or repair of the material, etc. Use your own judgment, but call for help from our supervisor if you have any doubts. Contact Circulation for forms and follow-up procedures.
2. If action seems deliberate and seriously destructive, call DPS (5-2221). Try to keep the patron in view; observe but do not approach him/her—let the police do that. When the officer arrives, identify the offender to the officer. The officer will secure the damaged materials as evidence. If the person leaves the area, be prepared to give DPS a physical description and to make a formal complaint when the officer arrives.

I. ACCIDENTS AND MEDICAL EMERGENCIES

1. Call DPS (911)
2. If other users volunteer to assist, use them in ways that do not require any decision on their part, or put them in any jeopardy. For example, they can be asked to wait at the front door for DPS to arrive, and escort the officer directly to you or to the area where needed.

Emergency Facilities and Supplies

The Main Library keeps a supply of emergency materials and equipment sufficient to deal with small or moderate disasters. However, for a larger disaster, additional equipment and supplies may be needed.

For all emergency supplies and services, on campus or off, make initial contact by calling Physical Plant at 3-1760. After hours or on a weekend contact the University Operator who will direct the call. The Physical Plant can supply from its own inventory such items as

VII. DISASTER SCENARIOS

Michigan State University maintains a file of information on each building on campus, and has created a flood manual and a Master Disaster Plan that encompasses the entire campus. The following information was obtained in part from consultations with various personnel in the Departments of Public Safety and Physical Plant.

A. Flood from Red Cedar

The 100-year flood level is 14.42 ft. at the Farm Lane Bridge. This level was reached in 1904. The 1975 level was 11.95 and the 1947 level was 11.42. The 1985 level was about 9 ft. Water would enter the ground floor level windows on the north side of the West wing at 13.71 ft. To prevent this, the University plans calls for sandbagging at the 13 ft. level. The danger of collection damage due to Red Cedar flooding is very remote. University contingency planning is very detailed. However, the library should maintain a 24-hour watch within the building whenever the level approaches the 11.5 ft. level.

B. Fire

The Main Library building structure is fire resistant and is fortunate not to have experienced a major fire since its construction. It has a very limited sprinkler system confined to two areas of the Library: in the Mailroom just inside the loading dock, and in the hallway in Binding Prep. However, smoke detectors are located throughout the building and are designed to activate the alarm system.

Disaster statistics indicate that between 1980 and 1993 the greatest number of library fires originated from incendiary or suspicious causes, at a cost of \$4,415,900. Over the past fifty years, deliberately set fires have accounted for as many as eighty per cent of library fires. Although fires can be set in stack areas at any time, the most vulnerable part of the building is usually the book return. The newer book return installed in the front of the library is equipped with limited fire protection features.

C. Mechanical Failure

1. Water Pipes

A water main failure would probably be confined to mechanical rooms and sub-basements. A major failure could bring escaping water into contact with steam mains, which, in turn, would cause secondary steam production, which could rise throughout the building. Water pipes, which rise above the ground floor, are relatively small in diameter. They would probably not allow enough water to escape to rise above 1 ½" on the floors. Lowest book stack shelves are 2"-3" off the floor.

First floor water main capacity is 250 gal. per minute, second floor is 225 gal, third floor is 205 gal, and fourth floor is 50 gal.

2. Air Conditioning

Air conditioning backup has occurred in the main library several times, resulting in ceiling leaks and damaged books to 4 West and East wing.

3. Electrical

Electrical failure of itself usually does not constitute a serious danger to the collection. However, an electrical failure combined with another catastrophe that resulted in the wetting of a large section of the collection would constitute the worst possible disaster scenario. Without power to remove water, to dehumidify and to circulate air, a wet collection would mold within 48 hours. The Main Library now has a limited auxiliary power system, which will continue to operate lights, computer systems, and elevators in an emergency.

The University generates its own power. Its transmission lines are all underground and the feeder main to the Library has a back up. Over the last 30 years, the longest campus-wide power outage lasted 5 hours (1987). The University, in the case of a failure of its own plant, has a 23-megawatt feed from Consumers Power. In the case of a failure of the CP main system, the University could operate independently. Nevertheless, there is always the possibility that a CP failure could be combined with a linkage failure as well, which could cause power surge damage to the University system. A simultaneous failure of both CP and the University power system would be the result. Damage to a wet collection would become irreversible if such an outage were to continue for more than a day. Such an eventuality is extremely remote.

4. Structural

Failure of building structures is a constant concern. In the Main Library and some of the branch libraries, roof leaks and minor plumbing leaks are not uncommon. Faulty air conditioning equipment often creates water problems. Any time moisture is introduced into stack areas there is a potential for mold formation. Regular inspection of stack areas, especially in the most vulnerable areas, is essential. Seasonal checks on drains will also help prevent water disasters.

D. Storms

The Main Library building can probably withstand most windstorms without damage. Shattered windows would be the most likely result if there were a direct hit by a tornado. It is unlikely, even in a major tornado, that there would be any structural collapse. However, loss of glass combined with rain and strong winds has the potential of more damage to the collection than any other cause.

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