

**National Library of Medicine
Preservation and Collection Management Section**

OFFSITE STORAGE OF PRINT MASTER MICROFILM

STATEMENT OF WORK

S:\psd\pressup\walter\PMSTORSOWFINAL.doc
Version issued with RFQ, 8/24/04

Table of Contents

| | |
|--|-----------|
| <u>I. Introduction</u> | |
| A. Background Information | 3 |
| B. Purpose and Objectives of the Procurement | 3 |
| <u>II. Vendor Requirements</u> | |
| A. General Requirements..... | 4 |
| B. Specific Requirements | 4 |
| 1. Overview | 4 |
| 2. Storage | 4 |
| 3. Additional temperature and humidity requirements | 5 |
| 4. Re-housing and Re-labeling | 5 |
| 5. Equipment and Supplies | 6 |
| 6. Shipment and Receipt of Film | 6 |
| 7. Care and Handling of Film | 7 |
| 8. Re-boxing Microfilm Reels Shipped in Acidic Boxes | 7 |
| 9. Re-labeling Newly-Boxed Microfilm | 8 |
| 10. Re-housed Microfilm Quality Control | 8 |
| 11. Filing Microfilm | 8 |
| 12. Physical Environment and Security | 9 |
| 13. Shipment of Requested Reels | 10 |
| 14. Insurance | 10 |
| 15. Reports | 11 |
| a. Monthly reports | 11 |
| b. Delivery of reports | 12 |
| 16. Data, Data Rights, Patents, Copyright..... | 12 |
| 17. Post-Award Administration and Monitoring..... | 12 |
| 18. Standards of Performance | 12 |
| Appendix A: Example of Box Labels and Labeling..... | 12 |
| Appendix B: Referenced and Relevant Standards and Practices | 13 |

I. Introduction

A. Background Information

The National Library of Medicine (NLM) is the library of record for biomedicine in the United States. It is mandated by Congress to collect, preserve and provide public access to biomedical information.

The Library's preservation policy states that the "fundamental responsibility of the National Library of Medicine is to preserve permanently the contents of books, periodicals, and other library materials pertinent to medicine" and "to assist in the preservation of important biomedical literature held by other U.S. institutions." In keeping with this policy, the Library creates preservation quality, first-generation camera master microfilms of monographs and serials originally published on poor quality, deteriorating paper. Second-generation print masters are duplicated from the camera masters. Third-generation service copies are duplicated from the print masters to meet inter-library loan and on-site patron research needs, as well as to fill third-party sale orders. Third-generation (service copy) reels exist for a relatively small percentage of all NLM microfilms.

As a preservation measure, the Library stores camera masters determined to be of acceptable quality offsite, keeping print masters in an on-site vault. Storing masters and print masters in geographically separate locations is a preservation measure intended to keep one set intact and available for copying, should the other be damaged or destroyed. However, the Library's on-site microfilm vault is now nearly full to capacity. To address this situation, NLM needs to provide climate-controlled offsite storage for over 15,000 print master microfilm reels.

The environment of the space where NLM film is stored must be a clean, secure area suitable for the storage of processed 35mm acetate and polyester base, silver-gelatin intermediate negative roll microfilm. The space must meet with the Library's approval and be situated in a location that is geographically separate from the remote site where NLM currently stores its camera masters (a vault in the Iron Mountain, Inc., underground facility in Boyers, Pennsylvania).

The facility where the NLM film is stored must also have the capability to re-box, wrap with paper string-tie wrappers, and accurately re-label microfilm storage boxes prior to filing.

B. Purpose and Objectives of the Procurement

The primary purposes of this procurement are: (1) offsite storage of processed 35mm acetate and polyester base, silver-gelatin intermediate negative roll microfilm reels in a secure, stable environment that meets with the Library's prior approval, and is separated geographically from the remote site in western Pennsylvania where NLM camera masters are stored; and (2) re-boxing, securing

with string tie paper wrappers, and accurate re-labeling of NLM microfilm reels sent for storage in old, acidic boxes.

II. Vendor Requirements

A. General Requirements

1. Independently, and not as an agent of the Government, the Vendor shall furnish all necessary labor, materials, supplies, equipment and services (except as otherwise specified herein) and perform the work set forth below.
2. All work under this contract shall be monitored by the Project Officer.

B. Specific Requirements

1. Overview

This project requires the Vendor to:

- a) provide secure, stable, climate-controlled storage for an estimated 15,000 NLM print master microfilm reels sent for offsite storage;
- b) provide storage area temperature and humidity control, air replenishment and air circulation suitable for the protection of acetate and polyester base print master negative microfilm;
- c) monitor storage conditions and keep a weekly log of temperature and relative humidity in the storage space;
- d) handle NLM film properly and carefully at all times;
- e) provide new, non-acidic microfilm boxes, labels and string-tie wrappers for NLM print master reels that are sent for storage in boxes the Library has identified as being acidic;
- f) use only non-acidic film storage container materials and processes that meet national standards and NLM specifications;
- g) check labels on re-boxed print masters for accuracy and completeness before placing the reels in the storage area;
- h) store NLM microfilm reels in an organized manner that facilitates prompt retrieval upon request;
- i) submit monthly summaries of activity, invoices and other reports as specified.

2. Storage. In order to make room for collection growth in its onsite microfilm vault, the Library needs offsite storage for approximately 15,000 reels of print master microfilm. The Vendor shall provide for microfilm storage in a clean, secure, well-maintained and routinely monitored space capable of maintaining the following conditions:

Temperature: stable, with minimum fluctuation within the range of 58°F - 62°F (e.g. 60°F, +/- 2°F)

Relative humidity: stable, with minimum fluctuation within the range 30%-40% (e.g. 35%, +/- 5%).

Film emulsions are sensitive to temperature and relative humidity conditions and must not be subjected to extremes or prolonged periods of fluctuation beyond a set range. The Vendor shall describe how temperature and humidity control are achieved in the storage space, and how temperature and relative humidity fluctuations beyond the ranges stated in the SOW will be detected, corrected and brought under control within 24 hours.

The Vendor shall describe the type of air filtration system used for supply air going into the storage area and list the specific dimensions of particulates or other airborne or gaseous pollutants the system is designed to filter out.

A calibrated recording hygrothermograph, or other calibrated, accurate and reliable temperature and relative humidity logger with the capability to store and print out recorded data, shall be used to monitor storage environment conditions. The Vendor shall keep a weekly log (hygrothermograph charts or datalogger print-outs) of ambient temperature and relative humidity conditions in the storage space. A copy of the log shall be available for NLM review upon request.

The storage space shall have a sufficient hourly rate of air exchange and rate of air movement to provide for the supply and circulation of fresh, conditioned air where NLM film materials are stored.

The storage space shall be protected by a fire detection system and fire suppression system that conform to local fire code and are periodically inspected and tested as required by the manufacturer.

3. Additional temperature and humidity requirements

Under no circumstances shall any NLM film be left in non-air-conditioned areas or otherwise subjected to extended periods of temperatures in excess of 72° F, and/or relative humidity (RH) levels above 50% while in the Vendors facility. This includes all times when NLM film is not in the storage area, e.g. when reels are received, checked in, re-housed, processed, or retrieved from the storage area for shipment to another location.

4. Re-boxing and Re-labeling

The Vendor shall carefully remove films shipped for storage in old, acidic film boxes, discard the string tie wrappers, and re-wrap and re-box the reels using new, non-acidic string ties and boxes. At no time shall Vendor staff unwind film from plastic spools.

The Vendor shall accurately copy each acidic film box label onto new, non-acidic, label stock with a laser printer, and apply the label to the new film box using a non-acidic adhesive. Labels and adhesives shall conform to Library of Congress

Preservation Directorate Specification No. 700-701-9/1/00, “*Specifications for Pressure Sensitive Adhesive Labels for Application to Box-board for Use in Laser Printers*” (see Appendix B).

The Vendor shall provide quality control to assure that all label data has been correctly copied onto new labels before the old, acidic boxes are discarded.

5. Equipment and supplies

All re-boxing, re-labeling, filing and storage of NLM print masters shall be within the Vendor’s facility. The Vendor shall supply paper film boxes, paper string-tie wrappers and labels for NLM print masters in old boxes identified by the Library as being acidic. All acidic boxes and film ties on reel in acidic boxes shall be removed and discarded when replaced.

Boxes and wrappers shall meet all requirements of the latest published versions of ISO 18902, ISO 14523, and ISO 18911 (see Appendix B).

6. Shipment and Receipt of Film

The Library will stage the transfer of microfilm reels to the Vendor storage facility in quantities agreed upon in advance. The Vendor shall be responsible for determining how many reels at a time can be received, stored on-site, processed and filed. The Library will ship the reels via recognized commercial carrier.

Upon arrival at the Vendor’s facility, the Vendor shall check each shipment against the NLM shipping manifest and notify NLM if any discrepancies are discovered when checking reels against a shipping manifest.

Prior to the completion of processing, re-housing (as required) and filing of a given shipment of reels, the Vendor shall inform the Library to prepare and arrange for delivery of the next shipment. The Vendor shall repeat this process in successive stages until the Library has shipped all print masters currently identified as candidates for offsite storage.

7. Care and handling of film

The Vendor shall provide staff with training in the proper care and handling of NLM film. Staff shall exercise the utmost care when handling all NLM film and shall observe the following practices:

- i. No smoking, eating or drinking shall be permitted in areas where film is being unpacked, stored, checked for content, boxed, labeled, or packaged for return to the Library or shipment for duplication.

- ii. All areas where film is handled or stored shall be kept clean, dry and dust-free.
- iii. At all times when removing acidic microfilm ties and replacing them with new, non-acidic ties, Vendor staff shall wear lint-free, clean white cotton gloves or similar film handling gloves meeting with the Library's approval. Staff shall not use hand creams or other skin care products that might leave a residue on the film.
- iv. The area(s) where NLM film is re-boxed, re-labeled and processed prior to storage shall be cleaned daily.
- v. No rubber bands or plastic tabs shall be placed on NLM films. No self-sticking notepapers or other materials backed with adhesives (other than pre-approved NLM labels for use on boxes) shall be placed on NLM films or film containers.
- vi. As a precaution against possible water damage, film sent for duplication shall be stored at least four (4) inches above floor level at all times while in the Vendor's facility.
- vii. At no time shall any NLM film removed from the storage space (e.g. for shipment to a location specified by the Library) be left in areas where temperature and/or relative humidity (RH) are likely to exceed 72° F and 50% for any length of time.

8. Re-Boxing Microfilm Reels Shipped in Acidic Boxes

NLM will identify and batch reels shipped for storage in old, acidic film boxes. The Vendor shall remove the reel of film from any box identified by NLM as being acidic, remove and discard the old string-tie wrapper, secure the film with a new, non-acidic string-tie wrapper and place it in a new, non-damaging, plain, white, flap-opening microfilm box, making sure that the label information from the old box is accurately transferred to a new label (see II.B.9, below for labeling instructions).

All new boxes shall be buffered and acid- and lignin-free. Box dimensions shall be no larger than 4" by 1 5/8" by 3 5/16". Wrappers shall be buffered, acid- and lignin-free and held together by button and string ties to keep spooled film from unwinding. Rubber bands, paper clips, tapes or fasteners of any other kind shall not be used to secure film on spools. Boxes and wrappers shall meet all requirements of the latest published revision of ISO 18902. The Vendor shall provide NLM with a copy of Photographic Activity Test (PAT) results (ISO 18916) for the boxes and wrappers that are to be used.

No Vendor name, logo, insignia or other marking or information not required by NLM shall appear on the boxes or wrappers.

9. Re-Labeling Newly-Boxed Microfilm

All information printed on old, acidic NLM film boxes shall be accurately and completely transcribed and laser-printed onto new labels before the old film boxes are discarded. New labels shall measure at least 1 ¼” by 3”. The new label shall be placed on the non-opening side of the box that is uppermost when the box is turned so that the thumb indentation is on the right, facing the person opening the box. See Appendix A for illustrations. All new labels must be neatly and firmly secured to the film boxes. The label paper and adhesive shall be strong and long-lasting, but non-damaging to the box or the microfilm. Labels and adhesives shall conform to Library of Congress Preservation Directorate Specification No. 700-701-9/1/00 (see Appendix B).

Lettering on new labels shall be laser-quality, 12 point, uppercase type in a clearly legible font. Each new label shall replicate the complete contents of the original label. All lettering shall fit completely within the borders of the label without coming closer than 1/8” to the edge. Labels on second-generation duplicates shall be stamped “PRINT MASTER.” The type of label and method of printing used shall be approved in advance by the Library. See Appendix A for examples.

10. Re-boxed Microfilm Quality Control

Prior to filing, the Vendor shall check each re-boxed reel for quality control purposes. Vendor staff shall check each film box to make sure that label information is complete, accurate and clearly printed, that the label has been firmly adhered to the box, the film is protected by a paper wrapper and secured with a string tie, and that the correct reel is in the box.

11. Filing Microfilm

NLM microfilms are organized on-site by film number in numerical order. The oldest reels are numbered sequentially with a prefix representing the year in which the film was produced (e.g. film numbers “48-1” and “48-2” represent the first two reels of NLM film produced in the year 1948). This numbering sequence was used from 1948 through 1992. The number of films produced within a given year varies. Some film numbers were subdivided to accommodate one or more reels (e.g. “64-1.1,” followed by “64-1.2,” &c.). Later reels are numbered consecutively without prefixes (e.g. “Film No. 1,” “Film No. 2,” &c.).

The Vendor shall coordinate individual reel shelving locations with an inventory system (e.g. bar-codes and local database) in such a manner that Vendor staff can readily retrieve reels when requested by NLM. Bar codes or storage location numbers shall be placed on the blank side of the microfilm box, opposite from the side with the label containing the NLM film number. No bar codes or storage location numbers shall be placed on the top or bottom flaps of the box.

Labels and/or inks used to record Vendor storage location or inventory numbers shall be non-acidic, non-damaging and shall not bleed through the film box.

Once filed, only Vendor staff shall have access to NLM films.

12. Physical and Environmental Security

The Vendor's facility shall be secured against theft, vandalism, fire, flood, rodent and insect infestation, and other environmental hazards.

The Vendor's facility shall have securely locking doors and windows, and shall have an intrusion alarm system connected to a local police department or building security service. The Vendor shall limit off-hours access to the building to times when authorized company personnel are present, and have in place a plan to lock all doors and windows when no staff members are on the premises.

The environment in the storage area where NLM film is to be filed shall be maintained at relatively cool, dry, stable and constant levels of temperature and relative humidity without extended periods of fluctuation or extremes, as described in Section I.B:

Temperature: stable, with minimum fluctuation within the range:
58°F - 62°F (i.e. 60°F, +/- 2°F)

Relative humidity: stable, with minimum fluctuation within the range:
30%-40% (i.e. 35%, +/- 5%).

When not filed in the storage area, under no circumstances shall any NLM film be left in non-air-conditioned areas or otherwise subjected to extended periods of temperatures in excess of 72° F, and/or relative humidity (RH) levels above 50%.

The Vendor shall have in place, prior to the beginning of work on the Purchase Order, a plan for responding to fire, water or other emergencies that may put NLM film at risk. As a part of the plan, the Vendor shall provide the name, address and phone number of a facility where NLM film will be shipped for dry-processing if it has gotten wet during an emergency.

The Vendor shall contact the Library as soon as possible in the event that a fire, flood or other disaster occurs in the Vendor's facility. The Library will provide the Vendor with emergency contact numbers and special procedures in the event that NLM film is affected by a water emergency.

The Vendor shall notify the Library in advance of any plan to relocate the NLM film to a newly-created storage area, or to store NLM film in a temporary storage location while the current space is being provided with new temperature and humidity control equipment (or otherwise modified or expanded). In such a case, the Vendor shall inform the Library of the measures that will be taken to protect NLM microfilm from damage, loss, dust, debris and exposure to extremes or fluctuations of temperature and humidity.

13 . Shipment of Requested Reels

Upon request, the Vendor shall provide for careful handling and secure shipment of NLM microfilm reels, using a commercial carrier approved by the Library. All requested films shall be shipped from the Vendor's facility within three (3) working days from the time of the request.

The Library will call or send e-mail messages detailing the items that are to be retrieved and shipped. Electronic versions of all film shipment transaction data shall be backed up with hard copy.

A charge-out slip or automated charge-out record shall be produced for every reel of film removed from the Vendor's storage area for shipment elsewhere. One copy of each charge-out slip shall be retained by the Vendor, and one copy shall be forwarded to the Library.

Reels retrieved from the storage area shall not be left in non-air-conditioned areas or otherwise subjected to extended periods of temperatures in excess of 72° F, and/or relative humidity (RH) levels above 50% while in the Vendors facility.

Reels the Library has requested to be shipped to NLM or elsewhere shall be enclosed in bubble wrap and placed, without being forced to fit but securely enough to prevent excessive movement, in sturdy shipping cartons. The cartons shall be securely sealed to minimize any risk of moisture reaching the film, and both the Vendor return address and the address to which the film is being sent shall be clearly and legibly printed on the sealed carton. If more than one carton of film is being shipped, cartons shall be clearly identified as "Box 1 of _____," "Box 2 of _____," etc.

The Vendor shall create a shipping manifest itemizing each reel of film being sent. One copy of the manifest shall be included in the carton, together with the reels of film. One copy of the manifest shall be kept by the Vendor, and one copy shall be faxed to the Library prior to shipping the film.

The shipment tracking service provided by the commercial carrier shall be used for all shipments of NLM film sent from the Vendor's facility.

14. Insurance

The Vendor shall provide a minimum of \$50,000 in property liability insurance against loss or damage to NLM film while in the Vendor's storage facility or in transit to or from a duplication facility. As proof of compliance with this requirement, the Vendor shall furnish the Library with a certificate of insurance. The Vendor shall be liable for the cost of replacing any film that is lost or damaged while in the Vendor's storage facility or in transit to or from a

duplication facility. The Vendor shall reimburse the Government for such replacement costs as the Library deems appropriate within 120 workdays after notification that damage or loss has occurred. Replacement costs shall include coverage for: processing; density evaluation; duplication; inspection; and packaging (in labeled box with string tie) of the completed film; and all related shipping and handling charges.

15. Reports

a. Monthly reports.

i. During the period in which NLM microfilm print master shipments are being sent for processing and storage, the Vendor shall prepare a monthly report of Purchase Order activity containing the following information:

- (a) total number of print master reels shipped for storage by the Library within the previous month;
- (b) production totals and cost summary for processing reels prior to storage; re-housing; re-labeling and related supplies (film boxes, string ties and labels); and shipment of requested reels;
- (c) brief summary table showing the number of reels stored, requested reels shipped, and associated costs, for both the reporting month and the current Purchase Order year to date;
- (d) copies of weekly hygrothermograph charts or datalogger print-outs documenting storage conditions for the previous month.

ii. Beginning the first month after all NLM print master reels have been shipped, processed and filed in the Vendor's storage area, the monthly report shall contain only the following information:

- (a) brief summary table showing the number of reels stored and the number of requested reels shipped, and associated costs, for both the reporting month and the current Purchase Order year to date;
- (b) copies of weekly hygrothermograph charts or datalogger print-outs documenting storage conditions for the previous month.

Reports should contain a brief narrative describing any problems encountered, including storage environment temperature or humidity problems resulting in HVAC system down-time or out-of-spec performance, steps taken to resolve the problems, and/or suggestions for streamlining or otherwise improving Vendor or NLM performance.

b. Delivery of reports

A copy of the monthly report shall be faxed to the Project Officer (301-480-1954) no later than 5:00 p.m. one working day prior to the last day of the reporting

period. This will be used by the Project Officer to complete reports needed within the Library. Originals of the monthly report shall be mailed to the Project Officer on or before the 5th calendar day of the following month.

Walter Cybulski, Project Officer
Preservation & Collection Management Section
Building 38, Room B1-E21
National Library of Medicine
8600 Rockville Pike
Bethesda, MD 20894
Phone: 301-496-2690
Fax: 301-480-1954
walter_cybulski@nlm.nih.gov

Reports submitted by the Vendor will be used for Library management purposes.

16. Data, Data Rights, Patents, Copyright

NLM retains the rights to all master negative film stored at the Vendor's facility and all information generated for reports or invoices related to this Purchase Order. No NLM film or information related to this Purchase Order shall be used by the Vendor, in whole or in part, for purposes other than the performance of the tasks specified as part of this Purchase Order.

17. Post-Award Administration and Monitoring

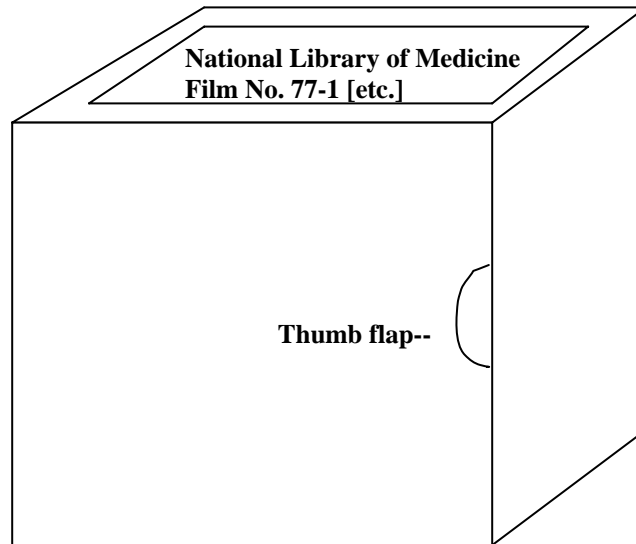
The NLM Project Officer will closely monitor the performance of this project through technical evaluation of the Vendor facility's storage conditions and other required reports.

18. Standards of Performance

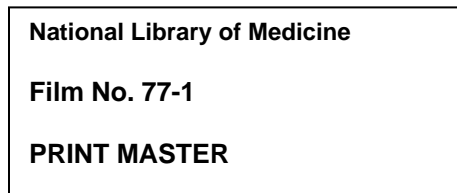
- a. All technical requirements, including those for storage, handling, re-housing and re-labeling, are met.
- b. Storage conditions are maintained with a minimum of fluctuation, monitored and documented.
- c. When not in the storage area, no NLM film is mishandled, damaged, improperly stored or exposed for extended periods of time to temperature in excess of 72° F and/or relative humidity above 50%.
- d. Requested films are retrieved promptly upon NLM's request.
- e. All required reports are accurate and submitted on time.

Appendix A: Examples of Box Labels and Labeling

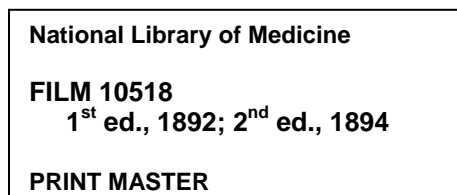
1. Placement of labels (flap-opening style box):



2. Example of monograph film box print master label:



3. Example of monograph film box with multiple editions. Most monograph labels will include only the film number and generation. This example also shows how a film label might account for editions of the same work.



Appendix B: Referenced and Relevant Standards and Recommended Practices.

The most recently published versions are required.

- (1) ANSI/AIIM MS23, Standard Recommended Practice – Production, Inspection, and Quality Assurance of First-Generation, Silver Microforms of Documents.
- (2) ISO 18902, Imaging Materials — Photographic Processed Films, Plates, and Papers — Filing Enclosures and Storage Containers.
- (3) ISO 18916 Photography — Processed photographic materials — Photographic activity test for enclosure materials.
- (4) ISO 18911 Imaging materials — Processed safety photographic films — Storage practices.
- (5) “Specifications for Pressure Sensitive Adhesive Labels for Application to Box-board for Use in Laser Printers” (Washington, DC: Library of Congress, Preservation Directorate) (Specification No. 700-701-9/1/00).
<http://lcweb.loc.gov/preserv/supply/specs/700-701.html>

Latest published versions of ANSI/AIIM and ISO documents available from:

American National Standards Institute
25 West 43rd Street, 4th floor
New York, NY 10036
Tel: 1.212.642.4900
Fax: 1.212.398.0023
<http://www.ansi.org/>
E-mail: info@ansi.org

AIIM International Headquarters
1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
Phone: 301.587.8202
Toll free: 800.477.2446
Fax: 301.587.2711
<http://www.aiim.org/>
E-mail: aiim@aiim.org

Paper copies of ANSI and ISO documents are also available from Global Engineering Resources, <http://global.ihs.com/>.