STANDARDS FOR COMPUTER-OUTPUT MICROFILM (COM)

FOR ~~ARCHIVAL RETENTION~~ PUBLIC RECORDS

17 VAC 15-50

Rev: 99

PART 1

17 VAC 15-50-10 **AUTHORITY**

These standards are established by The Library Board in accordance with the provisions of the Virginia Public Records Act, Chapter 7 (42.1-76 et seq.) of Title 42.1 the Code of Virginia.

PART 2

17 VAC 15-50-20 **SCOPE**

These standards apply to all records generated on computer-output microfilm (COM) that have been appraised as archival, having administrative, legal, fiscal or historical value as defined in Section 42.1-77 of the Code of Virginia to warrant their permanent preservation. Such determinations are included in the officially approved retention and disposition schedules. When such archival records are to be maintained on microfilm, the silver gelatin camera microfilm is to be considered the permanent archival security copy. Thermally processed film shall not be used unless a wet processed silver-gelatin microfilm copy is generated and preserved as the archival camera microfilm. The camera microfilm shall not be used for reference purposes and shall be inspected~~, approved and accessioned by the Information Imaging Branch, Archives and Records Division, Virginia State Library and Archives~~ *and approved by the user to meet this standard. If the*

COM original masters are to be stored by the Imaging Services Branch, Records Management & Imaging Services Division, The Library of Virginia, then the originals must also meet the "Guidelines for Film, Microfiche or Optical Media for Security Storage at The Library of Virginia". Film not meeting this standard or the "Guidelines" will be returned to the Office of origin.

PART 3

17 VAC 15-50-30 STANDARDS

Permanent records generated on COM shall comply with the following standards approved by the *American National Standards Institute (ANSI) and the* Association for Information and Image Management (AIIM):

ANSI:

IT9.1 - ~~1989~~*1992* Imaging Media (Film) - Silver-Gelatin Type - Specifications for Stability

IT9.2 - ~~1988~~*1991* Imaging Media - Photographic Processed Films, Plates, and Papers - Filing Enclosures and Storage Containers

IT9.11 - ~~1991~~*1993* Imaging Media - Processed Safety Photographic Film - Storage

IT9.17 - 1993 Photography - Determination of Residual Thiosulfate and Other Related Chemicals in Processed Photographic Materials - Methods Using Iodine-Amylose, Methylene Blue and Silver Sulfide

~~PH1.25 - 1989 Photography (film) - Safety Photographic Film~~

~~PH1.43 - 1985 Photography (film) - Storage of Processed Safety Film~~

~~PH4.8 - 1985 Photography (chemicals) - Residual Thiosulfate and other chemicals in Films, Plates and Papers - Determination and Measurement~~

PH1.151- 1983 ~~Photograph (Film) -~~ Micrographic Sheet and Roll Films - Dimensions.

PH2.19 - 1986 Conditions for Diffuse and Doubly Diffuse Transmission Measurements.

ANSI/AIIM:

MS01 - ~~1988~~*1996* Recommended Practice for Alphanumeric Computer Output Microform - Operational Practices for Inspection and Quality Control

MS19 - ~~1987~~*1993* Recommended Practice for Identification of Microforms

MS23 - ~~1990~~*1998* Practice for Operational Procedures/Inspection and Quality Control of First- Generation Silver Gelatin Microfilm of Documents

MS43 - ~~1988~~*1998* Recommended Practice for Operational Procedures/Inspection and Quality Control of Duplicate Microforms of Documents and From COM

MS45 - 1990 Recommended Practice for Inspection of Stored Silver Gelatin Microforms for Evidence of Deterioration

MS28 - ~~1987~~*1996* Alphanumeric COM Quality Test Slide

TR2 - ~~1980~~*1992* Glossary of Imaging Technology

PART 4

17 VAC 15-50-40 MICROFILM STOCK

The film stock used to make permanent archival security photographic or microphotograph copies of ~~archival~~ public records shall be safety-based permanent record film as specified in American National Standards Institute (ANSI)~~PH1.25 - 1989 Photography(Film) - Safety Photographic film;~~ IT9.1-~~1989~~*1992* Imaging Media (Film) Silver-Gelatin type Specifications for Stability.

PART 5

17 VAC 15-50-50 MICROFILMING PROCEDURES

Procedures to be followed in establishing and operating a COM micrographic program *for filming public records* shall conform to standards set down in *ANSI/AIIM MS23-1997 Practice for Operational Procedures/Inspection and Quality Control of First-Generation Silver-Gelatin Microfilm of Documents*, ANSI/AIIM MS01-~~1988~~*1996* Recommended Practice for Alphanumeric Computer-Output Microforms - Operational Practices for Inspection and Quality Control, ANSI/AIIM MS28-1987 Alphanumeric COM Quality Test Slide and MS43-~~1988~~*1997* Recommended Practice for Operational Procedures/Inspection and Quality Control of Duplicate Microforms of Documents and From COM.

17 VAC 15-50-60

Microimages, including the generation intended for use, shall contain all the significant record detail of the database, and shall be easily read and reproduced. Microimages of the records shall be arranged, identified and indexed so that any component of the records can be located with reasonable ease.

17 VAC 15-50-70

All densities shall be consistent throughout the microform. The background density on negative appearing ~~camera microfilm~~ *original silver masters* shall *meet or* exceed 1.8. Background density on positive appearing ~~camera microfilm~~ *original masters* shall be no greater than 0.35. The Base-Plus-fog density of unexposed, processed, clear-base film ~~shall~~ *must* not exceed 0.10. ~~When a tinted base film is used, the density shall not exceed 0.3.~~ Measurements are made using a densitometer *properly* calibrated ~~with~~ from a step tablet. ~~Provided by the Information Imaging Branch, Virginia State Library and Archives.~~

17 VAC 15-50-80

Each microfilm shall have eye readable titling. This titling shall include the office of origin, record series, inclusive information, date of filming and sequential numbering of the microforms.

PART 6

17 VAC 15-50-90 PROCESSING

Processing must be either conventional or full reversal, utilizing a developer and fixer. Processors shall be certified by the manufacturer as capable of producing archival quality processed film ~~as required by ANSI PH4.8 - 1985 Photography (Chemicals) - Residual Thiosulfate and Other Chemcials in Films, Plates and Papers - Determination and Measurement,~~ and *meet Methylene Blue requirements as stated in ANSI IT9.17 - 1993 Photography - Determination of Residual Thiosulfate and other Chemicals in Processed Photographic Materials - Methods using Iodine-Amylose, Methylene Blue and Silver Sulfide.*

17 VAC 15-50-100

Certification for archival quality processing shall be based upon the Methylene Blue test analysis. Processed microfilm must have an optimum concentration of greater than zero but shall not exceed ~~0.7~~ *.014 g/m²* in a clear film area. **Film processed in-house shall be tested and certified once every two weeks or as deemed necessary by the ~~Virginia State Library and Archives~~ *Imaging Services Branch, The Library of Virginia***. Processing services performed off-site shall include provision requiring that the Methylene Blue test shall be performed once every 24 hours.

17 VAC 15-50-110

A certificate documenting that the microfilm passes the Methylene Blue test shall be sent to the ~~Information Imaging Branch, Virginia State Library and Archives~~ *Imaging Services Branch, The Library of Virginia*. The certificate shall contain the name of the agency or governmental entity whose film was

processed, the date of processing, the date the Methylene Blue test was performed, the test results, the processor used and the signature of the person who did the test.

PART 7

17 VAC 15-50-120 HANDLING AND INSPECTION

The total microfilming system shall be evaluated to ensure that micro-images conforming to the standards are produced. The final reproduction, whether film or hard copy print from the film, must be retrievable, readable and reproducible.

17 VAC 15-50-130

The original master shall be handled as little as possible, primarily during the inspection procedure and when generating an intermediate master. Clean, lint free, white cotton or nylon gloves shall be worn when handling the ~~film~~ *original silver master*. Food, smoking and other contaminants shall not be allowed in areas where the original master is generated.

~~17VAC15-5--140~~

~~The Camera microfilm shall be handled only during the inspection procedure and then generating an intermediate master. In systems generating two camera microfilms, one shall be designated as the archival camera microfilm~~

~~and shall not be used for duplication, loaded into a cartridge or inserted in a viewer. In systems generating a single camera microfilm, the film shall be used only for inspection and the production of an intermediate master.~~

PART 8

17 VAC 15-50-150 STORAGE

The Computer-output microfilm shall be verified for completeness and accuracy by the Agency or governmental entity~~, then transferred promptly to the Information Imaging Branch, Virginia State Library and Archives, for storage~~. *If the original silver master is to be transferred to the Imaging Services Branch, The Library of Virginia, for storage following established Retention and Disposition Schedules, then it must also meet the "Guidelines for Film, Microfiche or Optical Media for Security Storage at the Library of Virginia.* Each microform shall be placed in enclosures that are free of acids and peroxides, ~~meeting ANSI PH1.53 - Photography (processing) - Processed films, Plates and papers - Filing Enclosures and Containers for Storage.~~ *and meet the requirements in IT9.2 - 1991 Imaging Media - Photographic Processed Films.* ~~Camera microfilm shall be stored according to ANSI PH1.43 - 1983.~~

17 VAC 15-50-160

At approximately two year intervals, a sample of randomly selected reels or fiche in storage shall be inspected according to MS45-1990 Recommended

Practice for Inspection of Stored Silver-Gelatin Microforms for Evidence of Deterioration.