effective ratio of 1:24 or 1:48 depending upon the application.

(b) Microfiche. When creating microfiche, either by microfilming source documents or using COM technology, the formats and reduction ratios prescribed in ANSI/AIIM MS5 (incorporated by reference, see §1238.5) must be used as specified for the size and quality of the documents being filmed. Use ANSI/AIIM MS23 (incorporated by reference, see §1238.5) for determining the appropriate reduction ratio and format for meeting the image quality requirements.

(c) Index placement—(1) Source documents. When microfilming source documents, place indexes, registers, or other finding aids, if microfilmed, either in the first frames of the first roll of film or in the last frames of the last roll of film of a series. For microfiche, place the indexes in the last frames of the last microfiche or microfilm jacket of a series.

(2) COM. Place indexes on COM following the data on a roll of film, in the last frames of a single microfiche, or in the last frames of the last fiche in a series. Other locations for indexes may be used only if dictated by special system constraints.

§ 1238.12 What documentation is required for microfilmed records?

Agencies must ensure that the microforms capture all information contained on the source documents and that they can be used for the purposes the source documents served. Microform records must be labeled and organized to support easy retrieval and use. Agencies must:

(a) Arrange, describe, and index the filmed records to permit retrieval of any particular document or component of the records.

(b) Title each microform roll or fiche with a titling target or header. For fiche, place the titling information in the first frame if the information will not fit on the header. At a minimum, titling information must include:

(1) The title of the records;
(2) The number or identifier for each unit of microform;
(3) The security classification, if any; and
(4) The name of the agency and sub-organization, the inclusive dates, names, or other data identifying the records to be included on a unit of microform.

(c) Add an identification target showing the date of microfilming. When necessary to give the microform copy legal standing, the target must also identify the person who authorized the microfilming. Use ANSI/AIIM MS19 (incorporated by reference, see §1238.5) for standards for identification targets.

§ 1238.14 What are the microfilming requirements for permanent and unscheduled records?

(a) Agencies must apply the standards in this section when microfilming:

(1) Permanent paper records where the original paper record will be destroyed (only after authorization from NARA);
(2) Unscheduled paper records where the original paper record will be destroyed (only after authorization from NARA); and
(3) Permanent and unscheduled original microform records (no paper originals) produced by automation, such as COM.

(b) Agencies must use polyester-based silver gelatin type film that conforms to ISO 18901 (incorporated by reference, see §1238.5) for LE 500 film in all applications.

(c) Agencies must process microforms so that the residual thiosulfate ion concentration will not exceed 0.014 grams per square meter in accordance with ISO 18901 (incorporated by reference, see §1238.5) and use the processing procedures in ANSI/AIIM MS1 and ANSI/AIIM MS23 (both incorporated by reference, see §1238.5).

(d) Agencies must use the following standards for quality:

(1) Resolution—(i) Source documents. Agencies must determine minimum resolution on microforms of source documents using the method in the Quality Index Method for determining resolution and anticipated losses when duplicating, as described in ANSI/AIIM MS23 and ANSI/AIIM MS43 (both incorporated by reference, see §1238.5). Agencies must perform resolution tests using an ANSI/ISO 3334 Resolution Test Chart (incorporated by reference, see