

PGI-81/WS-25

The Admissibility of Microforms as Evidence: a RAMP Study

General Information Programme and UNISIST

United Nations Educational,
Scientific and Cultural Organization

Paris, 1981

PGI-81/WS/25
PARIS, 31 January 1982

THE ADMISSIBILITY OF MICROFORMS AS
EVIDENCE: A RAMP STUDY

by

Georges Weill

General Information Programme and UNISIST

United Nations Educational,
Scientific and Cultural Organization

Recommended notice:

Weill, Georges
The Admissibility of Microforms as Evidence: a RAMP Study/
prepared by Georges Weill /for the/ General Information
Programme and UNISIST - Paris: Unesco, 1981. 70 p.;
30 cm - (PGI-81/wS/25)

- I. Title
- II. Unesco. General Information Programme and UNISIST
- III. RAMP (Records and Archive Management Programme)

CONTENTS

	<u>Page</u>
1. Introduction	3
A. Object of this report	3
B. Acknowledgements	4
II. Bibliography	4
A. General studies on the admissibility of microfilm as evidence.	4
B. Books and articles on micrography	5
c. Specialized bibliography arranged according to country	5
III. The 1975 Unesco report	10
A. Outline of the report	10
B. Summary of the report	10
c. Impact of the report	11
IV. Main changes in the law concerning documentary evidence since 1975 (countries in alphabetical order)	12
Canada, France, Federal Republic of Germany, Israel, Italy Lebanon, Sweden, Switzerland, United Kingdom, United states and the Council of Europe	12
V. Technical and legal conditions for the use of microforms	39
A. Changes in commercial law in the Federal Republic of Germany, Sweden and Switzerland	39
B. Attempts at reforming the law on evidence in Canada, the United Kingdom and the United States	41
c. Four examples of incomplete solutions	42
VI. Microforms and their admissibility as evidence: the need for regulations	44
A. Documentation and security microfilms	44
B. Substitute microfilms in administrative and commercial law	45
c. Suggestions	46
VII. Annexes 1 to 6.	49

I. INTRODUCTION

A. Object of this report

Since 1975, when Unesco published a report on Legal questions of the applications of microfilm, a number of changes in the law on admissibility have been made or initiated in various countries.

The Council of Europe, the International Organization for Standardization (ISO) and the International Micrographic Congress (IMC) have also taken an interest in the problem.

In May 1979, Unesco offered to prepare a new report for the Executive Committee of the International Council on Archives. Its aim was as follows:

to collect and analyse information on the admissibility of microforms as evidence and their acceptability, including legislation and regulations on the subject;

in the light of this new information, to revise and bring up to date the previous report (Unesco-COM-75/WS/30), referred to above) ;

to draw up a plan taking into account comments and suggestions from directors of national archives, government archives services, and other organizations concerned.

The International Microfilm Committee, a working group of the International Council on Archives specializing in this problem, was asked to prepare the report. The suggestion was on the agenda of the Microfilm Committee's annual meeting held in Oslo from 28 May to 1 June 1979, and the Committee asked Mr Georges Weill (France) to put forward a work plan.

The plan was submitted in September 1979 and a draft report followed, which was examined by the Microfilm Committee at its annual meeting held in Dublin from 10 to 13 September 1980.

A further six months was asked for to allow the writer of the report to incorporate the suggestions and comments of those members of the Committee who were present at the meeting. It was also decided that the International Organization for Standardization (ISO), which held its annual meeting in London from 17 to 21 November 1980, should be kept informed of the questions under consideration. Thus the writer of the report was able to include the information passed on at the meeting (20 November 1980) of the ad hoc commission set up by the ISO to correlate the various points of view on the admissibility of microfilm records as evidence.

The report is based on the 1975 Unesco report, on the books and articles to which reference is made, and on information obtained from 17 national and international bodies. For various reasons, some information has not been analysed in detail. The author believes, however, that the documentation presented in the report, which brings together the most important recent reforms concerning the law on admissibility, will enable the reader to form an opinion on the present trends in legislation and regulations concerning the admissibility of microforms as evidence.

PGI-81/WS/25 - page 4

A summary of the report was submitted to the Reprography Committee of the ICA at its annual meeting in Palermo from 3 to 6 June 1981.

B. Acknowledgements

I should like to express my gratitude to all my archivist colleagues who have kindly helped with the documentation of this report, and to the various people who have helped to clarify technical or legal details in their own field:

Mr Albert Leisinger, Director of the Scientific Division of the National Archives in Washington, Secretary of the International Microfilm Committee;

Mr Frank B. Evans, Division of the General Information Programme, Archives Programme Specialist, Unesco, Paris;

Dr Harmut Weber, Landesarchiv Direktion, Stuttgart (Fed. Rep. of Germany);

Mr Sven Haverling, Assistant Director of Military Archives, Stockholm (Sweden) ;

Dr Daphne Gifford, Head of the Research Department, Public Records Office, London (United Kingdom);

Mr Chaim Sarid, Director of the Archives of the Ministry of Defence, Tel Aviv (Israel);

Mr Bechara Habib, Director-General of the National Archives, Beirut (Lebanon) ;

Mr Jarvinen, Chief of the Archives Section, Unesco, Paris;

Mr O. Gauye, Director of the Swiss Federal Archives, Berne;

Mr J.P. Dumas, Judge, Chef du Bureau du Droit Civil Général, Direction des Affaires Civiles et du Sceau, Ministry of Justice, Paris;

Miss Rose Martin, Chef de la Division Informatique, Secteur Tertiaire, Association Française de Normalisation, Paris-La Défense;

Mmes Grillo, Principe and Malizia, Archivists at the Ufficio Centrale per i Beni Arhivistici, Rome;

Mr Lucia-Nardi, Head of the Laboratory of the Centro di Fotoriproduzione dell' Archivio Centrale dello State, Rome;

Mr C. Kesckemeti, Executive Secretary of the International Council on Archives, Paris.

II. BIBLIOGRAPHY

A. General studies on the admissibility of microfilm as evidence

1. BACSO (J.), BORSA (I.), SCHELNITZ (G.), Legal problems of the use of micro-films (outlines), in Bulletin of the Microfilm Committee, No. 4, pp. 18-20.
2. BORSA (I.), BACSO (J.), SCHELNITZ (G.), Legal questions of the applications of microfilms, Unesco document COM-75/WS/30, Paris 1975. 40 pp. + 7 pp. of appendices, 4° , multigr.

3. BORSA (I.), BACSO (J.), SCHELNITZ (G.), Legal questions of the applications of microfilms, in Bulletin of the Microfilm Committee of the ICA, No. 5, pp. 21-65, Budapest, 1976.
4. Unesco Bulletin for Libraries, Vol. XXX, No. 2, March-April 1976, pp. 71-77, under the title: Legal validity of microfilms: some recommendations. Relevant only to Section IX (Recommendations) of the report.
5. Council of Europe, Committee of experts on reproduction and recording of documents, Final Report, Document CJ-RE-GT (79) 2, Strasbourg, 1979, 12 pp. + 1 p., 4°, multigr.
6. KRAUSKOPF (Dr.) , Die rechtliche Aspekte des Beweiswertes der Mikroformen. Situation in den Mitgliedstaaten des Europarates, Strasbourg, Seminar on the admissibility of microforms as evidence, 8-9 May 1981, 4°, multigr.
- B. Books and articles on micrography
 1. LEISINGER (Albert H.) , Microphotography for archives, Washington, ICA, 1968, 34 pp. + 33 ill., 8°, offset.
 2. La Microphotographie aux Archives, tr. Chr. Gut, Brussels, International Council for Archives, 1975 (translation of preceding).
 3. Dictionnaire de la reprographie, Termes et definitions, Munich, Verlag Dokumentation Saur KG, 1976, 273 pp., 8°. Second impression of 3rd edition; trilingual dictionary (French, English, German) , 685 entries.
 4. SCHWARTZ (Danièle) , Conservation des images fixes, Paris, Documentation Française, Inter-Photothèque, Guide pratique des photothèques, 1977, 166 pp., 8°, illustrated. Practical and technical advice on maintenance and conservation of photographs on all kinds of materials, including silver films.
 5. DALGARD (S.), Regulations or requirements for microfilm records, 2nd draft, Copenhagen 1978-1979, 13 pp., 4°, multigr. Draft survey of the best technical standards ensuring security in the permanent practical use of microfilm. Incomplete.
 6. Vocabulaire de la Micrographie, Conseil International de la langue française, Paris, Hachette, 185 pp., 8°.
- C. Specialized bibliography arranged according to country

CANADA

- i. Canadian Government Specifications Board, Standard for microfilm as documentary evidence, Review Board Draft, document 72-GP-11, February 1979, 7 pp. + 6 pp., 4°, multigr.
2. Norme nationale du Canada, Microfilm, preuves littérales, Ottawa, Canadian Government Specifications Board, document CAN 72-11-79, 14 pp., August 1979, parallel text in English and French. The same text as 1, with the addition of an introduction.
3. Microfilm as Documentary Evidence, in Consensus, published by the Standards Council of Canada, Vol. 6, No. 4, October 1979, pp. 3-5. Commentary on the standard and background to its development.

4. Le microfilm comme preuve littérale, in Consensus, bulletin published by Standards Council of Canada, Vol. 6, No. 4, October 1979, pp. 3-5. An incomplete and inaccurate translation of 3 above.
5. Federal Property Management Rgs. § 101-11-502, Micrographs, pp. 105-112. Gives the official standards for the production, use, conservation and verification of microfilm in government archives.
6. The Admissibility of Evidence, A review and Recommendation, Canadian Micrographic Society, January 1979, 30 p., multigr.

FRANCE

1. CHAMOUX (J.P.), L'évolution du droit de la preuve dans le droit des affaires, Etude sur le microfilm, dans Compte Général du Ministère de la Justice (pour 1974), Paris, Documentation Française, 1976, pp. 131-183, 4°. Recommends the use of ultra-violet photography.
2. Journal Officiel de la République Française, Série Débats parlementaires, Sénat, 2e session de 1978-1979, annexe au procès-verbal de la séance du 10 mai 1979, No. 324, Rapport sur la proposition de loi sur la preuve testimonial, by M. Rudloff, 38 p. 4°. Recommends recognition of admissibility of copies as evidence.
3. _____, 2e session de 1978-1979 No. 35 du 17 mai 1979, séance du 16 mai 1979, pp. 1038-1316. The passing of the bill.
4. _____ Série Documents parlementaires, No. 1073, Assemblée Nationale, 2e session ordinaire de 1978-1979, annexe au procès-verbal de la séance du 17 mai 1979, Proposition de loi adopté par le Sénat relative à la preuve des actes juridiques. Text of bill modifying Article 1334 of the Civil Code.
5. _____ Série Documents parlementaires, No. 1801, A.N., annexe au procès-verbal de la séance du 12 juin 1980, distribué le 19 juin 1980, Rapport de M. Cellard au nom de la Commission des lois sur la proposition de loi, 32 p. Modification of the bill, passed by the Senate. See comments below, Chapter IV, France, C.
6. _____ Série Débats parlementaires, Assemblée Nationale No. 49 (R.R.) dated 25 June 1980, lère séance du 24 juin 1980, pp. 2188-2195.
7. _____ Série Documents parlementaires, Sénat, No. 335, Proposition de loi modifiée par l'A.N. Parliamentary documents relating to proof of legal acts, as passed to the President of the Senate. 4 p.
8. _____, Série Documents parlementaires, Sénat, No. 343, Rapport de M. Marcel Rudloff au tours de la commission des lois. Report on modification of bill relating to proof of legal acts. 20 p.
9. _____ Série Débats parlementaires, Sénat, No. 66 dated 30 June 1980, séance du 29 juin 1980, pp. 3313-3315.
10. _____ Lois et Décrets, No. 163 dated 13 July 1980, p. 1755, loi No. 80-525 du 12 juillet 1980 relative à la preuve des actes juridiques. Nos. 6-9 concern the legislative procedure for modifying the Civil Code as decided by the National Assembly. No. 10 publishes the law changing the rules of admissibility.

11. Journal Officiel de la République Française, Lois et Décrets, No. 164 dated 14-16 July 1980, p. 1788, decree No. 80-533 dated 15 July 1980, concerning application of Article 1341 of the Civil Code.
12. AFNOR experimental standard, Z 43-061, Micrographie, Microfilms de 16 mm destinés à être substitués aux documents originaux, février 1980, 6 p., 4°. Suggests use of both ordinary and ultra-violet photography.
13. CHAMOUX (Françoise) , la Preuve dans les affaires, Paris, 1979, 183 p., 8°.
14. Courrier de la Microcopie, No. 92 (July-August 1980), pp. 1-3, No. 93 94 (September 1980), pp. 19-23 and No. 97 (November 1980) pp. 1-4. Professional comment on the new law; comments by Mme F. Chamoux on the legislation relating to microforms; letter from G. Weill giving the point of view of the Archives de France.
15. Méthodologie d'emploi de la micrographie, Ministère du Budget, Service Central d'Organisation et Méthodes, Paris, 2e éd., 1978, 136 p., 8°.
16. PERRINE (Dominique) , Conservation et élimination des archives, in Bulletin du C.I.M.A.B. , No. 6, 1980, pp. 1-10.
17. Le problème de la valeur légale des microformes, in Bulletin du C.I.M.A.B. , September 1980, folio 1-7.
18. GUERIN-BROT (Isabelle), les Archives d'entreprises, conseils pratiques d'organisation, Paris, Archives Nationales, 1980, 55p., 8°. Excellent general account of cataloging methods, including micrography.

FEDERAL REPUBLIC OF GERMANY

1. Gesetz zur Aenderung des Handelgesetzbuches und der Reichsabgabeordnung von 2. August 1965, Bundesgesetzblatt, No. 35, 1965, pp. 665-666. Modification of law concerning the keeping of accounts and of the order relating to accounting. Authorizes microfilm.
2. Erllass des Bundesministers fur Wirtschaft und Finanzen, Verwendung von Mikrofilmanfnahmen zur Erfulleng Gesetzlicher Aufbewahrungspflichten, Bundessteuerblatt, 21 Dec. 1971, Teil I, pp. 647-648. Defines documents to be preserved in the original. Lays down principles for preservation of micro images.
3. Abgabeordnung (A.O. 1977), Bundesgesetzblatt, 23 March 1976, Teil I, No. 29, p. 613. Sets out the new fiscal law in regard to modern techniques, including microfilm.
4. Einführungsgesetz zur Abgabeordnung von 14 Déz. 1976, Bundesgesetzblatt, 17 Dec. 1976, Teil I, No. 143, p. 334. Authorizes the preservation on microfilm and other media of all accounting and tax documents (except balance sheets) .
5. Richtlinien für die Mikroverfilmung von Schriftgut in der Bundesverwaltung nebst Musterdienstanweisung, in GMBI, 1978, No. 11, p. 188; reproduced in der Archiver, 1979, H 2, pp. 191-194. Relates to the Federal Ministry of the Interior.

PCI-81/WS/25 - page 8

6. Richtlinien zur Durchführung der Sicherungsverfilmung von Archivalien, 1 August 1980, s.l. n.d. 1980, 10 p., roneotyped. Directives for safety microfilms of historical archive documents.
7. BOHATINK (E.), Rechtsgrundlagen der Mikroverfilmung, Stuttgart, 1979, 19 p., offset. Up-to-date account of admissibility of microfilm in fiscal and commercial law.

ISRAEL

1. Peqûdat ha-edot, Takanot bidebar ha'actiqim Silumûm in Kovetz ha-Taqanot, 1969, p. 40. Presentation of evidence, regulation on photocopies.

ITALY

1. PUSCEDDU (Fausto) , Manuale di legislazione amministrativa sui beni culturali archivistici, Rome, Coll., Fonti e studi di storia legislazione t. xv, 1978, 1500 p., 8°.
2. Gazzetta Ufficiale della Repubblica Italiana, 1968, No. 23, Legge 4 gennaio 1968, No. 15, Norme sulla documentazione amministrativa e sulla legislazione e autenticazione di firme. Article 25 concerns the reproduction of archival and other documents. Reproduced in 1 above, pp. 890-897.
3. , 1974, NO.306, pp. 8122-8126, Decreto del Pr sidente del Consiglio dei Ministri 11 settembre 1974, Norme per la forte riproduzione sostitutiva dei documenti di archivio e di altri atti delle pubbliche amministrazioni. Lays down legal and technical conditions concerning substitute microfilms (destruction of originals, inventory of documents to be microfilmed, technical processes for reproduction by photography, film and microfiche, authentication, cancellation, error) . Reproduced in 1 above, pp. 919-926.

LEBANON

1. D cret-loi No. 112 du 30 juin 1977, Journal Officiel No. 20 du 7 juillet 1977, annexe: Article 1 authorizes the use of microfilm for reconstituting public records.

SWEDEN

1. Swedish Companies Act 1975, with excerpts from the Accounting Act 1976, translated by Osvald (P.H.) etc., Stockholm, Federation of Swedish Industries, 1976, 144 p.
2. The Swedish Accounting Act 1976, Stockholm, I of S.I., 1977, 16 p.
3. Moderna arkivmedier, Stockholm, Dataarkiverings Kommitten, 1976, 337 p. Archivist's handbook concerning the new image and data media.
4. HAVERLING (Sven G.) , Technical aspects of the preservation of archival (security) microfilm, in Unesco Bulletin for Libraries, 1975, No. 2, pp. 68-74.

SWITZERLAND

1. Directives applicables en matière fiscale pour la tenue régulière de la comptabilité et relative à l'enregistrement ainsi qu'à la conservation des documents commerciaux sur des supports de données ou d'images, Berne, Administration fédérale des contributions, 1979, 21 p. imp. Brings together laws, orders and directives relating to the keeping of accounts by microfilm and computer.
2. KRAUSKOPF (Dr Lutz), Der Beweiswert des Microfilms und Erfahrung in der Schweiz, in IIe Congrès International de Micrographie, Actes des conférences, Paris, 24-27 September 1979, mult. p. 122. Unclear and inadequate summary of conference speech.

UNITED KINGDOM

1. Criminal Evidence Act 1965, 1965 Chapter 20, 2 June 1965. Accepts, under certain conditions, certain kinds of commercial documents as evidence in criminal law. Does not apply to Northern Ireland.
2. Civil Evidence Act 1968, 1968 Chapter 64, 25 October 1968. Modifies the law on admissibility in civil cases. Allows microfilm and other reproductions as evidence under certain conditions. Does not apply to Scotland or Northern Ireland.
3. Stock Exchange (completion of Bargains) Act 1976, 1976 Chapter 47, 12 October 1976.
4. Companies Act 1976, 1976 Chapter 69, 15 November 1976. Modifies the law on commercial companies and company declarations. Allows the use of microfilm and computers.
5. RODGERS (Mrs H.S. Fletcher) , Some legal aspects of microfilms and computer, in Microfilm Association of Great Britain, seminar on 13 July 1977, attachment 1, 4 fol. , photocopied.
6. JEFFERS (Raymond) , Microfilm as evidence in English Law Courts, in Microdoc, Vol. 18, No. 4, 1979, pp. 102-112.
7. RUSSELL (B.S.), The legal aspects of microfilming, in ?, 1979?, pp. 28 and 30.
8. Legal aspects of microfilm, in Microdoc, Vol. 19, No. 3, 1980, pp. 104-105.
9. Microfilm, Some Legal Implications, Guilford, Baker Associates, . . . The author was unable to consult this work.

UNITED STATES OF AMERICA

1. WILLIAMS (Robert F.), Legality of Microfilm, Admissibility in Evidence of Microfilm Records, Chicago, Cohasset Associates Inc., 1980, 558 p. May be brought up to date annually. Seven sections, technical annexes. The present report has made particular use of Section 3 (Federal Microfilm Laws) and Section 7 (Microfilm System Implementation) .

2. National Micrographic Association - SAA Committee on Standards for Public Records and Archives, Proposed Recommended Practice for Microfilming Public Records, Draft, April 1979, multigr. , 10 p. Proposed standards and directives for microfilming in public archives.

III. THE 1975 UNESCO REPORT

A. Outline of the report

The report by Mr Ivan Borsa, Mr J. Bacso and Mr G. Schelnitz, Legal questions of the application of microfilms, was submitted to Unesco in 1975. It exists currently in the form of a Unesco document and as a publication brought out by the International Microfilm Committee, and extracts have been published in the Unesco Bulletin for Libraries (see Bibliography, II, 2, 3 and 4) .

The report is a sound and well-documented general account of the admissibility of microfilm as evidence, based on answers from 23 countries. I shall recall its outline and summarize its main features, as the aim of the present report is not to modify it but merely to supplement it from the legal point of view.

In the original English version, the complete report consists of ten sections:

- I. Objectives
 - II. The definition of microfilm
 - III. The purpose of microfilming
 - IV. The principal uses of microfilm
 - V. The making of microfilm and its copies (enlargements)
 - VI. The legal safeguards of microfilm-making
 - VII. The connection between the microfilm, the copy and the enlargement made thereof as well as the original document
 - VIII. The probative force of microfilm
 - IX. Recommendations
- Appendix: Legal situation in countries which replied to the committee.

B. Summary of the report

Sections I to IV summarize the uses of microfilm in modern life.

Section V deals with the organizations that could be empowered to make microfilms.

Section VI is headed "Legal safeguards" and is concerned mainly with statutory regulations. It suggests that controls should be applied at every stage of the making, conservation and use of microfilm, to ensure that it reflects the contents of the original document in a true and accurate manner. This section describes the various countries' statutory regulations relating to every stage of the process.

Section VII examines the legal status of originals, of the first microfilm and of its duplicates, copies and enlargements, in terms of their uses. This section is theoretical, and deals also with the destruction of originals.

Section VIII examines how microfilm stands in relation to the rules of admissibility in force in the countries involved. There is a great deal of variety in the rules, and it is clear that except in some specific cases, the value of microfilm as evidence is still subject to many restrictions.

In this section the authors of the report have not sought to grade legislation in terms of "good" and "bad". They merely attempt a classification by legal system, so as to show where microfilm may be accepted as legal evidence and in accordance with which legal principles.

Section IX has been published almost in its entirety in Unesco's Bulletin for Libraries.⁽¹⁾ It puts forward recommendations based on the observations made in the previous sections. These recommendations summarize the main requirements already in force under the various legal systems, with the object of providing a sound technical and legal basis for all the stages of making a microfilm. The authors hope to contribute to the establishment of a series of concepts on which regulations for the admissibility of microfilm as evidence can be based.

The recommendations list the main requirements relating to the making, filming, choice of medium, checking, identification, preservation, storage, maintenance and use of microfilms. The recommendations are working suggestions aiming at ensuring the quality of the microfilm, its absolute identity with the original, and regard for its own special characteristics (protection against wear and tear, etc.).

Section IX also contains further suggestions about criteria for admissibility as evidence. These suggestions concern the legal status of organizations specializing in the making of microfilms, checking the authentication of microfilm made elsewhere than in such an organization, the problem of authentication by an authorized organization, and the various views as to how long an original must be kept before it can be destroyed.

C. Impact of the report

(a) International response

The report was widely distributed by Unesco to specialist organizations, Member States and lawyers' associations, an unusual procedure which shows that the importance of the problem was not underestimated and that an attempt was made to interest quite varied sections of international opinion.

It is difficult to assess the real influence of the report on the various organizations because the groups concerned have not made their response known in any visible way. None of the legal or technical studies consulted by the writer of the present report makes explicit reference to it. However, at meetings and seminars and in private conversations, people have spoken very highly of the work of Mr Borsa, Mr Bacso and Mr Schelnitz, and although it is almost impossible to prove, some of the suggestion in the 1975 report seem to have served as a basis for legal and statutory reforms in Europe since that date.

For example, some French lawyers and experts have privately acknowledged that their own work in this field has been considerably helped by parts of the report, but it must unfortunately be admitted that there is no sign of any such influence in the work of AFNOR.

(b) The problem of the working guidelines

The recommendations in Section IX are probably those which best reflect the concerns of legislators, who have realized that the admissibility of microfilm as

(1) See Bibliography A, No. 4, p. 5.

PGI-81/WS/25 - page 12

evidence depends on its reliability. In other words, the making and preservation of microfilm need to be subject to reliable safeguards.

This concern is to be found among the Swiss, German, Swedish, American and Canadian experts whose work I have examined.

(c) The problem of criteria for the recognition of admissibility

The kind of suggestion on this point put forward in Section IX of the 1975 report seems to have met with no success at all. Changes in German, Swiss and Swedish legislation, which apply only to commercial law, make no reference to these proposals. The Council of Europe has set aside any idea of organizations specially appointed to make microfilms, or of certification of authenticity. The French National Assembly has acted likewise. This rejection is due to considerations of cost, economy and efficiency.

Only Italy, and that as early as 1974, has set up a government-controlled system of supervision and safeguards for the making of government-service microfilms.

(d) The problem of carrying media for computerized data

Since 1975, the scope of computer systems has increased enormously, and both users and lawyers have been faced by the problem of the legal admissibility of the carrying media involved. In most cases, legal reforms or plans for reform have covered the legal validity of both image and data carriers. Sometimes practical directives have distinguished between the two in order to provide for the different techniques involved in their manufacture. The laws themselves, however, treat the problem as one, thus demonstrating that governments are presently concerned with establishing a single identical method of recognizing legal validity, applicable to all the new ways of treating information and records. The recommendations of the Council of Europe are also significant here.

IV. MAIN CHANGES IN THE LAW CONCERNING DOCUMENTARY EVIDENCE SINCE 1975
(countries in alphabetical order)

Canada
France
Federal Republic of Germany
Israel
Italy
Lebanon
Sweden
Switzerland
United Kingdom
United States
Council of Europe

CANADA

Like all the industrialized countries, Canada has been confronted with the expansion of microfilming and data-carrying media systems. Many private companies and even public services have at great expense acquired the necessary equipment, but the obligation to preserve original documents, by increasing the costs of management and storage, has led public opinion to favour a change in the law.

P.. Present state of legislation

Canadian legislation has not been standardized, and there are appreciable differences between the various provincial laws and even between them and the federal laws. These differences concern the following points:

(a) law on admissibility

The legislation is based on English practice and has to observe the law of admissibility, which conforms to two rules:

the rule of hearsay;

the rule of original evidence, which admits best evidence.

(b) the six-year clause

In some states in Canada, only an original document can be accepted as evidence for a period of six years.

(c) differences in terminology

Some local legislation uses very restricted definitions of such terms as original, duplicate, photograph, document, recording, etc.

B. Present state of jurisprudence

There are exceptions to the hearsay rule, especially in the case of commercial documents, which have to satisfy certain indirect guarantees of accuracy. As there can be no counter-proof, the law provides either legal or ad hoc guarantees.

The question is whether a microfilm can offer these guarantees in such a way as to serve as evidence. In most disputes at law the parties have come to an agreement beforehand, so that the microfilm has not had to undergo the test of public trial. Furthermore, some judges have tended to make no distinction between the original on paper and the copy on microfilm. Legal commentaries, however, take the opposite view and maintain that a microfilm is a document different in character from an original on paper.

In addition, advances in technology have brought about changes in information systems, and the judge's problem is no longer just the comparison of a document on paper with one recorded in another medium, for example film, but the comparison of one document on paper with another recorded on some other paper medium used in an information system (COM). Thus the matter in question is not the quality of the document or of the copy, but the accuracy of the information.

Faced with the new systems, jurisprudence was deemed to be evolving more slowly than the demands of modern living required. It was therefore decided to bring the law up to date in consultation with all the professional groups involved. Lawyers, archivists, technical specialists and users were all brought together to draw up a suggested reform of the law on admissibility as evidence.

c. The suggested reform, and preparation of the Canadian national standard

1. In 1977 a federal and provincial task force was set up to standardize the rules of admissibility as evidence. The lawyers concerned agreed it was necessary to draw up a standard which would enable microfilm to be accepted.

PGI-81/WS/25 - page 14

2. At the same period the Public Archives of Canada appointed a co-ordinator to work in liaison with the Canadian Government Specifications Board (C.G.S.B.).

This co-ordinator, an archivist, decided to work in consultation with the group of lawyers also.

3. The Specifications Board (C.G.S.B.) was asked to draw up suggested standards within the framework of the National Standards System, a federation of standards organizations, and entrusted this task to the Public Archives.

4. With the help of the co-ordinator of micrographic standards, Mr Earl Dupuis, the Public Archives asked the Quality Control Committee to draw up this standard. In fact the new standard was drawn up by a subcommittee of representatives of professional interests and users.

5. The preliminary draft standard was submitted first to the Government Specifications Board (C.G.S.B.), then to the Standards Council of Canada, which co-ordinates the National Standards System.

6. The standard was accepted by the Standards Council of Canada as conforming to their statutes, which encourage voluntary standardization. The new standard was held to reflect reasonable agreement between the experts and to be in the national interest.

It was published in 1979 as: The National Standard of Canada, Microfilm as Documentary Evidence.

D. The national standard on microfilm

I. What the standard covers

1. Purpose of the standard (Preface, § 1)

The standard must make it possible to prove the credibility of microfilm when used as evidence in court.

The standard regards a microfilm as a reproduction of an original document, and considers that there must be a method of checking whether it is an authentic reproduction (the term "authentic" is used in both the French and the English official versions) .

2. Scope of the standard (Scope, § 2)

It provides guidelines enabling any organization to show that it uses a process of micrographic reproduction which is trustworthy and offers the guarantees necessary to prove, if required, that the microfilmed image is a true reproduction of the original, made under controlled conditions. (Here, for "true", the French version again uses "authentique", which signifies copie certifiée conforme in French law. This seems ambiguous to the writer of the present report, who prefers the English version.)

The standard lists the operations required for a microfilming programme, but does not describe the methods of development or the technical processes involved in the various operations.

3. Technical reference standards (§ 3)

The standard refers to certain national and international technical standards.

4. Terminology (§ 4)

Defines the terms microfilm, micrography, microform and control picture.

5. Requirements for a microfilming programme (§ 5)

The standard sets out five main requirements for a programme of microfilm reproduction:

- (a) written authorization from someone in authority;
- (b) the programme must be part of the organization's regular activity;
- (c) the systems and working methods used must be demonstrated and explained;
- (d) precautions must be taken to safeguard quality;
- (e) precautions must be taken regarding storage and filing.

Guidelines on the various essential factors

6. Preparation and execution of programme (§ 6.1 to § 6.5)

(For §§6-11 we have summarized the text of the standard so as not to make the commentary unduly long.)

- (a) Written authorization from someone in authority certifying that the programme is part of the organization's regular activity; the authorization must give the signatory's name and responsibilities.
- (b) The organization is responsible for the execution of the programme even if it delegates the work to a service company.
- (c) The programme must include all the arrangements necessary for the identification of the documents, standards, processes, systems and methods of control and verification required in the reproduction, storage and use of the microfilm.
- (d) Once the prepared programme is started it must be subjected to regular checks, including verification of documents and checks on technical requirements relating to the making, development and storage of the microforms.

New methods arising out of technical developments or the practical exigencies of work must be notified and written into the guidelines.

7. preparation of documents (§ 7.1 to § 7.4)

- (a) A microfilm must reproduce the whole text of the original, including details and imperfections; there must be no attempt to improve its legibility by changing or touching up.
- (b) If the legibility of a document is below a certain level, it may be improved on authorization. The standard describes a dual photography method which facilitates comparison after the touching up.

- (c) The microfilming should be done in a sequence which follows the order and classification of the documents themselves. Microfilms should be filed, identified and indexed in such a way as to facilitate checking against the document or documents involved.

8. Photographing and developing (§ 8.1 to § 8.4)

- (a) While responsibility for these operations belongs to the technicians, responsibility for maintaining quality belongs to the person in charge of the programme.
- (b) The object of this requirement is to make possible the critical checks required by a court of law. It concerns the detailed checking of documents when they are being photographed, the positioning of the control pictures, the necessary certificates and attestations, and all other items needed to complete the file.
- (c) There must be frequent checks during the developing of the microfilm.
- (d) A final check must be made to ensure that all photographic and other material requirements have been met, that the order of the original documents has been followed, and that the control pictures have been properly inserted.

9. Quality assurance (§ 9.1 to § 9.5)

(The French version uses the term assurance. The idea of legal guarantee has as yet no equivalent in French law.)

- (a) This clause determines the credibility of the microfilming programme in the courts. Action on this clause should be assigned to a section specializing in the monitoring of operations and quality control.
- (b) This section should evaluate the relevance and efficiency of methods of inspection and control, and introduce any changes necessary for the due observance of the checks prescribed in §§ 6, 7 and 8.
- (c) Those involved should be independent of the people responsible for ordinary inspections.
- (d) The methods to be employed by this section to safeguard quality should be defined in the guidelines and in the handbook, as should the results and any modifications made.
- (e) Those responsible for the preparation of the documents, the photography, development and inspection must produce a microfilm of a quality which is consistent and acceptable to the user, who is not always able to judge these qualities for himself.
- (f) This part of the programme must not be confused with the inspections and checks relating to conformity with reproduction standards. The standards concerning reproduction safeguards are in the course of preparation.

10. Filing and storage (§ 10.1 to § 10.3)

- (a) The person responsible for the programme and the curator of the documents must agree about the length of time the original negative or master must be kept. In case of doubt about this, the most demanding storage standards are to be applied.

- (b) The storage of microfilms must conform to an ISO standard which is in the course of preparation.
- (c) The original negative or master is not intended for viewing. Negatives must be kept clean and undamaged, and only copies should be used for viewing purposes.

11. Explanatory notes attached to the standard

The guidelines proper of the standard have already been summarized above, but the standard also includes explanatory notes referring to each section of the text.

1. The standard does not deal with the law of admissibility and related regulations, which are legal matters (destruction of originals, rule of best evidence, etc.) . The purpose of the standard is to establish rules ensuring that a microfilm is produced within the framework of a reliable programme and in conditions regularly checked and verified.

2. The standard describes methods of supervision for reproduction on microfilm, and the principles to be followed in preparing a general programme.

Special systems, such as those involving the use of jackets or COM will be covered by other standards.

3. The five factors listed in § 5 are stated to be vital for demonstrating the credibility of the programme, from the beginning (preparation of the files) to the end (storage of the films) .

4. The compilers of the standard stress the importance of the guidelines concerning the programme (planning, organization, nomination of person in charge, integration into regular activities, carrying out of the various checks and controls, records, etc.) . The keeping of these rules increases a microfilm's credibility in a court of law.

However, should doubt arise about the authenticity of the original, this doubt casts a shadow on the authenticity of the microfilm, and it is for this reason that all necessary precautions should be taken (comments in § 6).

5. The explanatory notes also comment on §§ 7 and 8, i.e. on the question of retouching (where a process to improve legibility is used) , on technical assumptions concerning the quality of the image, on compulsory control pictures (whatever the microfilming system used, whether strip, jacket, microfiche, etc.) , on the certifications to be inserted in the film, and so on.

6. The Canadian standard introduces the notion of quality assurance, an idea which does not refer to technical quality (definition and density of image, etc.) but to a checking operation comparable to one carried out by a panel of assessors.

7. The explanations concerning § 10 (classification and storage) are important because they are generally misunderstood and inadequately applied. Every reproduction system has its own special requirements regarding the treatment of films and the storage in good condition and protection of the original negative or master (atmospheric conditions, conditions relating to consultation and viewing, and so on) . Few people realize that microfilm has to be stored differently from paper, and the microfilm curator is not usually a professional.

E. Observations on the Canadian national standard

(a) Declared aims of those who compiled the standard

The authors of the standard hope that it will throw light on an area of the law which has hitherto been confused. They know that the publication of this standard does not guarantee legal recognition of microfilm as evidence, but they think it may prepare the way for such recognition. The system set out in the standard should provide an answer to doubts cast on the credibility of micrographic reproduction.

The authors believe that the standard will act as a basis for barristers to cross-examine witnesses on the authenticity of a microfilm submitted as evidence.

They think that the progress achieved in the case of microfilm may serve as an example for other systems of information management or processing.

(b) Observations on the procedure followed

The procedure followed by the Canadian authorities is unique, reflecting a belief in co-operation between organizations which is not usual in Europe.

This procedure brought together all the groups institutionally concerned with standards, i.e. representatives of professional interests, users, and even lawyers, in order to arrive at a consensus.

General responsibility for the procedure was given to the Public Archives under the patronage of the Government Specifications Board. This shows the respect in which these two organizations are held by Canadian public opinion.

The national standard is to be ratified by the Federal Department of Justice, which intends to promulgate it so that microfilms produced under the specified conditions of supervision may be admitted as evidence by the courts.

The Canadian standard has already acquired some fame abroad. At the meeting of the ISO, on 20 November 1980 the British and French representatives said that their own countries wished to adopt a similar procedure for securing the admissibility of microfilm as evidence.

It should be noted that the Canadian Standard is based on an English type of jurisprudence. It also had to take into account the variety of local legislation on evidence and the strong autonomy of the provinces. The experiment could possibly be transposed to the United States, but it is difficult to see how it could be adopted elsewhere.

F. Changing the law of evidence

The compilers of the standard have made it clear that their work did not concern the law in the strictest sense, and in particular the law of evidence. The legal aspect of the question is to be dealt with by lawyers within the framework of the federal and provincial task force referred to above (C,1) .

In 1979, the Canadian Micrographic Society published a sort of white paper on the admissibility of evidence in the Canadian courts (see Bibliography, Canada, 6) . This tried to show that existing legislation did not meet the needs arising out of the daily use of microfilm and other data media. It showed that current methods had eliminated the use of paper as the usual documentary medium, and that it was urgently necessary to bring up to date the meaning of the terms record and original.

The Society made the following recommendations:

- (a) that federal and provincial law on the admissibility of evidence should be changed so as to permit:
 - 1. acceptance by the courts of microfilms of paper documents in all cases where the originals may be accepted as evidence;
 - 2. the acceptance by the courts of microfilms derived from magnetically recorded data in all cases where paper documents are accepted as evidence;
- (b) that the task force should approve the reform proposed by the Commission for the reform of federal law. This was published as an appendix to the booklet and dealt with the abolition of hearsay evidence and with the rule of best evidence:
 - 1. hearsay evidence is not admissible except in cases specified by the law (Article 31 of the proposed reform);
 - 2. the rule of best evidence should include all modern methods of preparing evidence, on condition that such methods correspond to the definitions laid down by the law. Articles 75 to 81 deal with the admissibility of originals, written documents and recordings.

This reform aims at establishing the value as evidence of microfilm and of all the most modern kinds of recordings, whether electronic, magnetic or mechanical.

FRANCE

A. Development of the law of evidence

In France, the law of evidence has developed rather differently from the path it has taken in other European countries such as Germany and Switzerland. The point of departure, however, has been the same, namely the great expansion in the use of microfilm in company management, which has made the destruction of original documents desirable.

- (a) In 1973 the Ministry of Justice asked a judge, Mr Chamoux, to conduct an inquiry, and his report suggested that microfilm should be accepted as an information medium as durable and safe as paper, with the following safeguards:

technical precautions concerning the film, the photography, the developing process, and observance of standards of use and storage;

observance of conditions facilitating the admission of microfilm as evidence viz. minimum reduction, check on definition, keeping of two copies, ultra-violet photography (see Bibliography, France, 1) ;

- (b) The above conclusions have served as a basis for a number of technical and legal studies. The Association Française de Normalisation (AFNOR - French Association for Standardization) has initiated technical studies through a working party composed of makers and users. The association has attempted to draw up a standard offering sufficient safeguards so that microfilm can have the same value as evidence as the original.

- (c) At the same time, the Ministry of Justice has extended its inquiry into the development of the law of evidence in response to modern management techniques. This work has been undertaken by Mme F. Chamoux, who has also made it the subject of a thesis for a doctorate in law under the direction of Professor François Gore, an expert in commercial law.
- (d) The various studies have led to three results:
1. The publication of an experimental standard, AFNOR No. Z 43-061, valid for two years and applicable to 16 mm films. In addition to the usual technical specifications about quality controls, the standard requires the double photography, image by image, of all documents, first in ordinary and then in ultra-violet light (see Bibliography, France, 12) .
 2. The publications of a study by Mme Chamoux on evidence in business, which deals with the problem of microfilm and COM as copy, recommends the AFNOR standard. This work is also based on the legislative reforms introduced in Europe during the last ten years (see Bibliography, France, 13).
 3. The law passed by the French Parliament on 12 July 1980 on the proof of legal acts.

B. The law of 12 July 1980

(a) The debates

The procedure leading up to the vote lasted more than a year, and included reports, debates, inquiries and compromises between the Senate and the National Assembly. The members of these two assemblies were much influenced by the conclusions of M. and Mme Chamoux, the studies carried out by AFNOR and the recommendations of the Council of Europe, and did not consider it necessary to ask the advice of other technical experts and users such as the CNRS (Centre National de la Recherche Scientifique) and the Archives de France. It should be noted that the trade union of bank employees also issued press handouts to make its opinion known.

While there is no point in going into the details of the debates, which aroused considerable reactions, we should note that the final version of the law adopted by the National Assembly was much more restrictive than the first one adopted by the Senate against the government's advice. The National Assembly, voting on the proposal of Deputy Cellard, gave the following reasons for its decision:

the AFNOR standard was thought interesting but inadequate;

the law should define not the faithfulness but only the durability of the reproduction;

the copy remains a copy, and the judge has to appraise its value as evidence with reference to the original in accordance with the criteria laid down by the law (faithfulness, durability);

copies need not be submitted to licensed inspectors, as in the case of authentic documents, because the cost of setting up a body of such inspectors would be too high (see Bibliography, France, 2-9) .

(b) What the law stipulates

The law modifies or abolishes 14 articles of the French Civil Code concerning the law on the proof of legal acts. Proof is henceforth defined in accordance with the following principles:

1. Written proof is compulsory for every obligation in money or kind (Article 1326 of the Civil Code).
2. An authentic or signed document is required for every sum or asset, the value of which is fixed by decree (Article 1341 to 1345 of the Code) .

The decree of 15 July 1980 fixed this value at 5,000 francs for the present (see Bibliography, France, 11).

3. Exceptions to the above rules may be admitted as follows:

in the case of a breach of the law;

if the deed is lost;

if one of the parties has not preserved the original deed, but presents a copy which is not only a faithful but also a durable reproduction. Any reproduction is deemed durable which is an indelible copy of the original involving an irreversible change in the medium used (Article 1348 of the Code) .

c. Observations

(1) The International Microfilm Committee, meeting in Dublin from 10 to 13 September 1980, did not consider that this reform offered a practical solution to the problem of the legal validity of microfilm.

(2) British, Canadian and American experts, attending the meeting on 20 November 1980 of the ad hoc commission of CFTC, 171 of the ISO, came to the same conclusion.

(3) This attitude disappointed French lawyers like Mme Chamoux, who had hoped that "the French standard would have a good chance of serving as an international reference" (see Bibliography, France, 13, p. 151). We should also mention that as far as comparative European law is concerned, Mme Chamoux's thesis seems to have been written using an incomplete and poorly interpreted bibliography.

(4) The law is at present impossible to apply because sufficiently advanced technical equipment is not available (e.g. camera capable of dual takes, film sensitive to both ordinary and ultra-violet light, sufficiently rapid shooting, etc.) .

(5) AFNOR'S insistence on trying to find a miracle solution to the problem of microfilm derives from a view of copies as something criminal (concern with forgery, fraud, etc.) which covers only a very marginal aspect of microfilmed documentation. AFNOR has already had to modify its definition of "security microfilm" and return to the international definition (Mme Chamoux reproduced this mistake, op. cit, pp. 152-153) .

FEDERAL REPUBLIC OF GERMANY

The Federal Republic of Germany is probably the country where legislation and regulations on microfilm have been most abundant in recent years. Between 1975 and 1978 more than 25 laws or administrative regulations were published, mainly concerning the management of government departments, archives and commercial law.

The Federal Republic's extraordinary economic development has encouraged the boldest kind of experiment in office automation, but it has also caused an increase in government involvement, resulting in a need to process and store large masses of records. First microfilm and then computers have provided ways of avoiding the very heavy costs of record handling and storage.

A. Government department and archival management

The central government has set an example by authorizing the storage on microfilm of certain kinds of files. As early as 1956 the Ministry of Labour and Social Security introduced the microfilming of various kinds of documents (lists of members, benefit cards, account books) into health insurance accounting and then into life insurance accounts by authorizing in 1957 the microfilming of medical records.

In 1964, the union of professional associations conditionally authorized substitute microfilming, allowing for the controlled destruction of certain professional documents.

We shall examine below the 1965 law, modified in 1976, which introduced microfilm into commercial law. Independently of this law, however, most ministries have worked out guidelines or have given authorization for the microfilming of various kinds of record: e.g. transport (documents on road traffic, 1966; plans for water supply, 1967) ; labour (assistance documents, 1966; accounts of accident insurance, 1967; insurance files, 1972); construction and housing (land register, 1966); justice (Patent Office Records, 1968; law administration records, 1976); interior (citizenship records, files on naturalization, name changes, 1968); armed forces (management records, 1972).

Federal and provincial government departments have also drawn up very strict directives authorizing the microfilming of historical records (security microfilm) and of administrative records (1978 and 1979) . All authorizations for microfilming add conditions governing photography and quality controls, and prescribe standards which forbid the unreasonable destruction of originals and should prevent fraud.

The directives of the Ministry of the Interior (1978) authorizing substitute microfilming in federal government offices lay down severe and precise standards which cannot be reproduced here but which are very similar to the suggestions made in the 1976 Borsa report regarding supervision of photography.

The security microfilming of archival records is governed by a circular of 1 August 1980 setting out the general principles of that operation, together with technical conditions and quality standards for the making and storing of microfilm.

Generally speaking, the federal government, followed by those of most of the states or Lander, has provided for the possibility of managing and storing certain current files in the form of microfilms. It should be noted that all these authorizations are subject to detailed regulations designed to ensure supervision at every stage of the making and storing of film and to prevent unauthorized destruction of original documents.

B. Changes in commercial and tax law

(a) What the new legislation provides

The law of 16 March 1976, which came into force on 1 January 1977, introduced changes into tax law and the regulations governing business accounting. It authorizes the microfilming of certain accounting records, with some permanent restrictions.

All vouchers and documents with the exception of balance sheets may now be preserved on microfilm instead of being kept in the original. This ruling also affects regulations on the length of time for which originals must be preserved, and permits these to be destroyed after satisfactory precautions have been taken.

Microfilming must follow the principles of regular accountancy; the copy or data medium version must correspond exactly to the original. Copies must be available during the period within which the original itself must legally be preserved, and be perfectly legible for a suitable period.

(b) Official regulations

1. According to the new legislation, accounts must be kept so that an expert can, after a stated period, give his opinion of the firm's financial position. Profits and losses must be regularly determinable, and accessible for tax checks.

All these regulations apply equally to microfilm.

2. The legislation fixes the length of time for which accounting documents must be preserved (between 6 and 10 years depending on the importance of the documents and "the relevant fiscal regulations. The periods prescribed are the same for microfilms as for originals.

3. Reproduction by image-carrying medium: the law does not specify either format or colour, so black and white microfilm is possible, provided it does not reduce the opportunities for carrying out checks.

4. For current management documents the law calls only for reproduction of the content of the originals; this excludes reproduction on disc, magnetic tape or data-carrying medium.

5. A microfilm may be made by a qualified workman.

6. Conditions governing photography: the Federal Finance Ministry, in its circular of 14 December 1976, set out instructions for microfilming. These cover the introduction and use of microfilming and the role to be played by those concerned at each stage of the operation.

(c) Principles underlying the regulations

1. The microfilming process must be specified and described for each stage of the filming, and must be so ordered as to make it possible to find on the film, within a reasonable time, all the information desired.

2. Control of process employed and of the medium used: a record must be made of the titles of documents and the place and date of the photography, and a statement made certifying that the photography was not tampered with and was complete. The record must be signed by the operator.

PGI-81/WS/25 - page 24

3. The carrier-medium must be subject to technical checks; defective images must be redone (or else the original must be kept). The result of the check must be countersigned in writing.

4. Originals may be destroyed after filming has been carried out according to the regulations, unless the law provides otherwise. Any infringement of the rules may lead to tax penalties.

5. There are printed instructions to help taxpayers with the formalities.

(d) Austria

Austrian law has been influenced by the German legislation. Austria allows the storing of most accounting records on microfilm or data-carrying media. The author of the present report is not however acquainted with the rules applying specifically to microfilming.

C. Civil, criminal and administrative law

(a) General documentation

It is not planned to issue any rules on this subject. The decision whether to destroy or to retain on image-carrying media is left to individual initiative. On the other hand, records of historical value are usually microfilmed for reasons of security. The Public Archives have been given very specific instructions on this matter (see Bibliography, Germany, 6) .

(b) Civil law

The introduction of microfilming has not yet given rise to any difficulties in Germany. German jurisprudence has already recognized copies and photocopies as equivalent to originals, but the original must be presented to the court in case of doubt as to correspondence. If there is no such doubt, the copy has the same value as evidence as the original.

In case of disagreement, a record on microfilm made in accordance with legal prescriptions of 1976 is an advantage, since the record can be used to prove absolute correspondence with the original.

(c) Criminal law

There have been no cases so far. It may therefore be supposed that photocopies and microfilms have the same validity as originals, but this decision is left to the judge.

ISRAEL

A. 1969 regulation on the admissibility of photographic reproductions as evidence

The 1969 ruling changes the law on evidence by permitting the use of microcopies in certain cases and under certain conditions.

A photocopy is defined as any reprographic document which permits the copy to be read for a minimum of five years, provided that it contains all the signs contained in the original.

A photocopy of a document which has not been destroyed may serve as evidence if it was made recently and is accompanied by a statement by the person holding the original, or by a third person, certifying that it is a true copy.

A photocopy of a document which has been destroyed may serve as evidence only under the following conditions:

it must be a microcopy which is part of a series in a film which has not been cut or joined. Any corrections or additions must be certified;

the film must have two certificates, one at the beginning and one at the end, the first being a request by the initiator for a photocopy to be made, the second being a declaration by the operator;

the photocopy must be made in the course of normal operations;

if the originals were destroyed deliberately by ordinary means, this must be certified by a document authorizing the destruction;

if the originals were destroyed by accident, war or other cause, a declaration is required to this effect, made by the relevant regional court and dating from a period very close to the event;

finally, this regulation is also valid for documents destroyed before 1969 provided the necessary affidavits have been properly made.

E Observations

This regulation is in current use in government offices.

The author of the present report cannot say whether its use extends to civil or criminal law.

It will be noted that the regulation is very vague and permits all kinds of interpretations. It does not contain any technical standards or working guidelines.

ITALY

A. Present state of legislation

Unlike other European countries, Italy has changed its legislation and statutory requirements only in respect of administrative law, but these changes may affect civil law as it relates to businesses or communities which engage in financial or economic activities.

- (a) The law of 1968 on administrative documentation, Article 25.

This authorizes government offices to reproduce photographically, and to store as negatives, records, accounts, correspondence and other documents.

Its application is regulated by a decree which was not issued until 1974.

- (b) The decree of 11 September 1974 on the standards to be applied in the substitute reproduction of records and other documents in government offices.

PGI-81/WS/25 - page 26

The decree lays down very comprehensively the technical and administrative methods to be used in making substitute microfilms (making it possible to destroy the original documents after they have been photographed).

This permission is limited to government offices, local communities and nationalized industries.

A number of documents, listed in Article 2, are excluded from substitute microfilming (for example, historic documents, laws and decrees, legal judgments, international treaties, government plans, personal files, registers of administrative documents, important contracts, deeds executed by notaries, documents or drawings in colour, journals, diplomas, etc.).

The working guidelines, which are under the supervision of the State Archives Department, lay down very detailed rulings for the microfilming procedure. The requirements and provisions include:

an application for authorization which includes a complete description of the archives involved and the method to be used;

preliminary microfilming tests;

rules governing the destruction of the originals;

a list of the documents to be microfilmed, which takes due account of all the annotations on the files;

standards to be observed during the microfilming process;

annotations to appear on the microfilm;

checking and technical supervision of the microfilm;

authentication of the film.

B. Characteristics of present legislation

Italian legislation is both novel and interesting. It presents the following characteristics:

(a) Advantages

it offers exceptional guarantees regarding the stringency of the microfilming process;

it imposes strict legal and technical standards;

it makes microfilming the responsibility of the originating organizations, but places it under the supervision of the Ministry of Cultural Property and Archives;

it allows reproduction on 16, 35 and 70 mm microfilm and on microfiche;

(b) Disadvantages

the legislation is recent and has not yet been applied. In May 1980 only two organizations had applied for authorization and submitted the necessary documents;

the procedure is complicated, calling for a preliminary survey and checks at various levels;

it applies only to organizations which already have an organized archives service capable of classifying archives before they are microfilmed and of making an inventory of these documents;

it is expensive, and can be applied only by public organizations with finance and staff available;

it aims at discouraging rather than encouraging substitute microfilming, though all the precautions it requires are perfectly valid from the technical point of view.

C. Observations

Some government offices, such as the post office and the hospitals, already make use of substitute microfilm without observing the standards prescribed by the 1974 decree. Other ministries, generating a large volume of records (such as the Ministries of Labour, Social Security, and Pensions), have been asking for a liberalization of the decree, which they regard as too restrictive.

Reforms in civil and commercial law are apparently not yet contemplated.

LEBANON

A. Order in Council of 30 June 1977

The events of recent years have caused irreparable destruction in Lebanon. In order to facilitate the reconstruction of civil records lost or destroyed, the Public Records Office has been authorized to make use of copies and recordings whose validity can be recognized. This authorization allows microfilms to be used as reference documents if they relate to civil records and other statutory documents in government possession.

B. Observations

This ad hoc legislation allows microfilm a certain value as evidence, but it is too restrictive and lacking in detail to serve as an example.

SWEDEN

A. Legislation since 1975

The law on accountancy and commercial companies was modified between 1975 and 1978 by the following:

Companies Act, 1975: 1385;

Act on the Implementation of the Companies Act, 1975: 1386;

Accounting Act, 1976: 125.

The laws came into force in 1977, and slight additions have been made to them since.

PGI-81/WS/25 - page 28

The power to microfilm accounting documents is suggested in §§10 to 22 of the law of 1976, which lays down (§ 10) that accounting documents may take the form of:

documents in ordinary legible form;

films or microcopy media which can be read by means of enlargers;

under certain conditions, punched cards and punched or magnetic tapes.

Microfilm and other copies are allowed only if the medium is durable, if the information they contain is easily available, and if the storage of the medium is suitably provided for.

The length of time such records may be kept is fixed at ten years (§ 22).

Data carriers may not be destroyed unless the information they record has been carefully transferred beforehand to an ordinary legible text, to a film, or to a microcopy legible by means of enlargement.

In certain special cases, the government may authorize the destruction of ordinarily legible originals before a ten-year period has elapsed, in which cases the originals must have been microfilmed or copied by a safe process.

Copies must be filed so that the information they contain may be easily retrieved and read. They must be preserved for the time stipulated by the law.

Permission to destroy may be granted by the Bank Inspection Board or the Insurance Inspection Board, delegated by the local authorities. The limits of the legal financial year are laid down by the additional legislation of 1976: 991.

B. Instructions on application and comments

There is a book which comments on this legislation and includes all the relevant official instructions and circulars issued up to 1980 (see Bibliography, Sweden, 5). It exists only in Swedish and the author of the present report will therefore not venture to summarize it. It may however be pointed out that on pp. 79-84 there is a comment on § 10 which gives definitions of film, ordinary microfilm and COM microfilm. Pages 148-153 comment on § 22, which deals with storage. An appendix gives instructions concerning application of the legislation, including instructions on microfilming and storage of films issued in 1977 and 1978.

c. Observations

The Swedish legislation seems to have been based on reforms in the German and Swiss commercial codes. It does not at present affect either civil or criminal law.

It may be noted that the development of Swedish commercial law called for by Swedish public opinion corresponds to the wish expressed in the report submitted to Unesco in 1975 (VIII, 2.2).

Norway intends to follow the above legislation soon, but Denmark at present allows only some documents to be recorded on data carriers. Microfilm is not yet authorized.

SWITZERLAND

A. Reform of the Civil Code (1975)

Directives were issued in 1971 authorizing the use of microfilm in business accountancy. On 19 December 1975, the Swiss Civil Code was altered to change the rules concerning obligations (Articles 962 and 963) .

This reform allows accounts to be stored on image-carrying media, but correspondence and vouchers may be recorded either on image- or on data-carrying media. Only the trading account and balance sheet need to be kept in the original.

Copies and recordings must correspond to the original documents and it must be possible to put them into readable form at all times, under certain conditions. The copies and recordings then have the same value as evidence as the documents.

If a judge decides that the documents need to be produced as proof, the copies or recordings must be made available in such a form as to be readable without the aid of instruments.

B. Order of 2 June 1976

The legal conditions prescribed for the recording of documents on image- or data-carrying media were set out in the order of 2 June 1976.

These instructions lay down various formalities to be observed both for microfilm and for data-carrying media:

working instructions explaining the recordings;

regular accounting procedure to be followed;

the copying must be in accordance with regulations and the reproduction must correspond to the original documents;

the copies must be accessible and in a readable form;

instructions about details to be recorded: name of the company, names of people responsible, kind and number of documents, place and date, observed damage;

technical checks for defects;

storage;

reproduction;

responsibility of the person in charge of storing documents.

c. Lastly, the tax authorities have prepared directives for drawing up the working guidelines on microfilm called for by the order of 1976.

These guidelines cover or provide for:

the distribution of responsibility among the people in charge of the different stages of microfilming, from the selection of documents to the maintenance of recording and reproduction equipment;

the copying to be in conformity with the regulations and a record to be kept of microfilming and monitoring operations;

the proper preparation of documents to be recorded, and the drawing up of a microfilming schedule with all the information that will make it possible for a third person to understand everything easily at the first reading. This schedule has to be very detailed, and this assumes that the accounts to be copied have been properly classified and inventoried;

the making of the copy, including the noting of people concerned, occasions when more than one reel is used, jackets, defects in the copying, etc;

the writing of a report by the person in charge indicating the conditions, place and dates of the copying, and the checking and destruction of the originals;

technical precautions against deterioration or destruction, and methods of correction;

the opportunity for a qualified third person to consult the copies within a reasonable time; instructions about viewing equipment, provision for enlargements.

D. Consequences of the reform

It should be noted that this change in business law affects computer accounting as well as microfilm, though the former does not concern us here. Directives similar to those referred to in C have been issued to cover recording on data-carrying media.

Since the change was introduced, several thousand commercial and industrial companies in Switzerland have begun to store accounting documents on microfilm. According to one Swiss judge, only one case of tax evasion has been discovered in a period of three years.

This very flexible legislation seems to satisfy the 250,000 companies which exist in Switzerland, but one cannot help wondering whether the technique it relies on is adequate for detecting all attempts at fraud.

UNITED KINGDOM

A. Legislation since 1965

The development of new data-carrying media has led to the passing of several new laws introducing changes into English commercial, civil and criminal law.

The Criminal Evidence Act, 1965 (2 June 1965) says that documents may be constituted by information-storing methods.

The Civil Evidence Act, 1968 (25 October 1968) says that the following are deemed to be documents: cards, sketches, drawings, photographs, films, discs, magnetic tapes and all other methods of reproducing one or more visual images.

The Stock Exchange Act, 1976 (12 October 1976) and the Companies Act of 15 November 1976 allow documents-stored on image- or data-carrying media to be submitted to the tax authorities.

These laws clearly permit the use of microfilm. Microfilm should therefore be accepted in the courts, but English courts accept only the rule of best evidence, which does not recognize the value of microfilm as evidence.

B. The rule of best evidence

English law is still governed by the rule of best evidence: the original document remains the best evidence in the courts.

In some cases a judge may accept the rule of secondary evidence and microfilm can then be admitted under the following conditions:

if the original has been destroyed;

if the copy is a true copy of the original;

if the exact correspondence between the original and the copy can be proved.

A microfilm may not be accepted as secondary evidence if the original still exists.

A microfilm can be accepted as evidence only if it conforms to the conditions laid down in the Civil Evidence Act of 1968.

C. Microfilm according to the law of 1968

The Civil Evidence Act of 1968 accepts microfilm as secondary evidence if it satisfies the following conditions:

if it has been made by a person who is regularly engaged in microfilming and as part of a routine activity;

if it has been accepted by someone who has had knowledge of it personally or through intermediaries.

These conditions must be supplemented by evidence about the person who makes the copy and about the way in which the work is carried out. Evidence is also required about the person or persons who provided the documents.

The question of the legal validity of microfilm thus depends on the stringency of the microfilming process, but this process is not defined either by law or by any administrative ruling.

Lawyers and microfilm experts have put forward various remedies for this.

D. Current solutions

(a) Certificates

It is suggested that provision should be made for two kinds of certificates:

a certificate of intention, attached to the beginning of the film and indicating the nature and source of the originals, together with a declaration that the originals have been destroyed, after the quality of the microfilm has been checked;

a certificate of authenticity, drawn up by the microfilm operator and declaring that the film is a true and correct copy of the original.

PGI-81/WS/25 - page 32

Reputable microfilming companies are now accustomed to delivering this second certificate automatically.

(b) Working guidelines

Various methods have been suggested for the improvement of microfilming processes viz. strict supervision of staff in charge of the operations, requirement that operators should have professional qualifications, preserving two copies of every film, etc.

(c) Security measures for originals

It is suggested that no important original should be destroyed. As there is no official list of such documents, a lawyer may be consulted on this point.

Companies are advised to be careful about the legal time-limits for destruction, which vary according to the kind of document involved.

E. Observations

England has not solved the problem of the legal validity of copies. Recent changes in civil and criminal law are cautious, incomplete and even dangerous for companies which may have thought they could destroy originals with impunity.

(a) The original remains the best evidence; a microfilm may be regarded as secondary evidence; the judge's decision is binding.

(b) There is no regulation which makes it possible to say that microfilm is valid as evidence. The solutions to this problem suggested by lawyers are very inadequate technically and can only offer a point of departure for more exacting provisions.

UNITED STATES OF AMERICA

A. Present state of legislation

(a) General remarks

Microfilm has as yet no legal validity in the United States. There is only a vague series of laws, regulations and legal comments authorizing the use of microfilm for private or public records and for certain kinds of evidence.

In some cases, neither state nor federal legislation provides for microfilm, but this does not mean that copies made on microfilm are not accepted, or that legislation is vital to legitimize its use.

United States legislation on this subject was referred to in the Unesco report of 1975, but in order to understand the difficulties which microfilm users encounter it is necessary to examine in more detail the present state of the various legal rulings on this matter. We shall then look at recent suggestions about the admissibility of microfilm as evidence.

(b) Present trend in American legislation

Twenty-five years ago microfilm was regarded, technically speaking, as a copy of the original.

now, however, because of technological progress, microfilm may be regarded as an original itself and as a piece of graphic evidence in its own right.

Present legislation is extremely confused, however, because of the various possible combinations of local laws, jurisprudence and federal regulations.

(c) Documentary evidence in the courts

To be accepted as evidence in court, any document must fulfil the conditions laid down by the law. If the document is a copy it must fulfil further conditions.

1. General conditions

the content of the document must deal with the subject being argued in the court;

the document must be identified or authenticated, i.e. it must be recognized as being what it claims to be;

if any objection is made, the litigant must prove that the document obeys the rule of hearsay evidence.

2. Further conditions for copies and microfilms

a copy is admissible as secondary evidence only if the original no longer exists;

it has to be proved that the copy is an accurate reproduction of the original; this being so, the court will call for the copy to be authenticated.

(d) The four rules enabling microfilm to be recognized as admissible as evidence : all these rules assume that the microfilm relates to the subject and has been authenticated (the 1975 Unesco Report, 2.3.2, quotes only 3 rules)

1. The U.P.A. rule (Uniform Photographic Records of Copies of Business and Public Records as Evidence Act)

Forty-four states have gradually adopted this rule, recommended in 1949 by the National Commission for Uniform State Laws.

This rule lays down four conditions for the validity of microfilm as evidence:

the copy must have been made in the regular course of the firm's work. This condition reflects the development of business practice; it confers a certain guarantee on microfilm and can justify its use as evidence;

a microfilm made specially for the case is not admitted as evidence;

the copy must have been made for the firm's normal purposes;

the copy must have been made by means of a process which gives an accurate reproduction of the original or a durable-medium reproduction of the original.

This condition in fact covers all documentary reproductions. If the technical methods of reproduction are more elaborate, the litigant must offer all the evidence necessary to show conformity with the requirement of "accuracy".

The copy must be satisfactorily identified: this condition calls for an identification report mentioning the different stages of the microfilming. Some courts have shown themselves to be very particular about this condition, and lawyers advise firms to provide meticulous written evidence concerning every stage of the filming (practically image by image), the comparison with the original, and quality control.

2. Uniform Rules of Evidence, 1953 and 1974 versions, and Federal Rule of Evidence

The Uniform Rules of Evidence have been adopted by eleven states (in the 1953 or the modified 1974 version) . The Federal Rule of Evidence has been adopted by 29 American courts, and is applied in all federal courts and various sectors of the federal administration.

These two rules do not require the copy to have been made in the normal course of the firm's work.

They define the photograph, the negative and all copies made from the negative as originals.

They accept COM microfilm as an original.

They define a duplicate as an equivalent made from photographs whether enlarged or reduced.

They require the presence of an original to prove the contents of a written document or photograph, except in cases laid down by the law.

They nevertheless allow a duplicate to be used on the same basis as an original, except if there are doubts as to its authenticity or if it is unfair to prefer the copy in place of the original.

In other words, these rules reverse the burden of proof in favour of the party putting in the duplicate. The burden of proof is on the other side.

The legal presumption is that any copy on microfilm is as good as the original. (In the case of COM microfilm, the negative becomes the original as with any print made from a negative.)

The court is nevertheless the sole arbiter in the application of this rule, and its decision may be influenced by the circumstances surrounding the destruction of the originals.

3. The Best Evidence Rule

This is the old English law, also known as the "original document rule" which allows the submission of a copy when the absence of the original is satisfactorily explained.

Jurisprudence offers several kinds of valid excuse for non-presentation of the original.

A copy must, however, be judged accurate and the circumstances in which it was made must be plausible, although there are no necessary pre-conditions laid down for its admissibility as evidence.

4. Business Record Exception to the Hearsay Rule

When all else has failed, use may be made of an ingenious rule invented by practitioners. This rule claims that a microfilm has value as evidence as a separate business record. This rule has been used on occasions to validate copies of cheques since the court has decided that the microfilm made by the banks in the course of their daily work should be regarded as a primary and not a secondary proof.

This rule could be applied to all kinds of business records.

B. Suggestions from American lawyers

(a) Principles for setting up a microfilming process

In the light of the above rules, some American lawyers have suggested five principles for setting up a system for producing microfilms admissible as evidence. A microfilm could then become an ordinary copy.

1. Every stage of the process should be covered by a written and recorded procedure.
2. The reproduction process used must be accurate, i.e. technically advanced.
3. The copy must be checked before the original is destroyed, and the check must be recorded in a written attestation.
4. The filing of originals must be self-justifying. Destruction of originals must be the result of a regular process set down in writing.
5. These four principles should be applied under the supervision of people capable of giving evidence of the general and special procedure used for microfilming.

These principles correspond roughly to the guidelines laid down in German and Swiss law for ensuring the admissibility of microfilm as evidence though the American suggestions are not so detailed.

The American lawyers hope that legal prescriptions may make their principles as accurate as the technical standards arrived at by microcopy engineers.

(b) General bases of the principles suggested

Given the fact that it is impossible for a firm to conform to all these principles in the course of its ordinary activities, it has been suggested that standards or guidelines should be introduced which might be voluntarily accepted by businesses.

In fact it is not practical to compare a film with the original image by image. This could be a very costly procedure, and is not in any case required by current American legislation.

The characteristics underlying the principles may be summarized as follows:

1. it must be possible to check the microfilming process to ensure that it produces accurate reproductions on a regular basis;
2. the operation must be carried out following an appropriate procedure;
3. the written procedure must be kept for the same length of time as the film.

PGI-81/WS/25 - page 36

It could be proved in this way that the microfilming process had made it possible to produce accurate copies.

(c) Principles on storage standards

There are various official regulations on this subject. Some state that records may be kept on microcopies, either without specifying standards, or else prescribing those of the National Bureau. Others require originals only to be kept. Others again say nothing on this point.

In the first case, the microfilm is equivalent to a copy.

In the other cases, it may be that a microfilm will not be accepted as a valid copy, depending on the rules, of evidence followed by the courts.

For this reason the principles suggested earlier above may be very useful when it comes to establishing the burden of proof. Several recent judgments in American courts in any case show a trend in favour of the admissibility of microfilms as legal evidence, since technical standards reflect the evolution of industrial civilization.

c. Guidelines for achieving a legally acceptable microfilm procedure

There have been many books and articles setting out the technical standards necessary for producing a good microfilm, but few have laid down both the technical and the legal rules to be observed in order to produce a microfilm to serve as evidence.

Mr Robert F. Williams has drawn up a set of such guidelines (see Bibliography, United States, 1, Section 7, Microfilm system implementation). This is a digest of the legislation and technical standards at present current in the United States:

it sets out the 25 possible conditions which should enable microfilm copies to be accorded the value of evidence;

it defines archival microfilm (supposed to last for a hundred years) as meeting the highest quality standards; but not all microfilms need to come up to these standards;

it deals with microfilm making at every stage, from the quality of the negative used, to the final procedure governing the destruction of originals;

it examines the effect of quality and controls at all levels, including that of the small items of equipment used in viewing and reproduction;

only the problem of expert appraisal in case of forgery or deterioration of the original is not dealt with, and this because of the present state of American legislation.

D. Observations

The complexity of American legislation is such that we cannot definitely say it recognizes the admissibility of microfilm as evidence. Only the courts can appraise the question of proof, in the context of local and federal rules.

There is however a certain tendency in American jurisprudence to recognize that microfilm is acceptable as evidence.

We may also expect Robert Williams' work, especially Section 7, to influence the drawing up of legal guidelines for the production of high-quality microfilms admissible as evidence in American courts.

COUNCIL OF EUROPE

The Council of Europe has taken an interest in the standardization of legislation relating to the need for documentary evidence and to the validity of reproductions of documents and computer-stored information as evidence.

It entrusted the study of this question to the Comité d'experts sur la reprographie et l'enregistrement des documents and to the European Committee on Legal Co-operation (E.C.L.C.). A working group made up of six lawyers, two observers and a secretariat was commissioned to prepare a preliminary draft recommendation.

The working group met in November 1978 and in February 1979. It drew up a final report on its activities consisting of:

an account of its work and a summary of the problems examined;

a preliminary draft recommendation and preliminary draft rules, which were passed to the committee of experts for examination by the E.C.L.C. and subsequent transmission to the Committee of Ministers;

a detailed commentary on the preliminary draft;

a list of participants.

A. The preliminary draft and its commentaries

(a) The recommendations

1. Suggested abolition of need for documentary evidence for transactions concerning amounts above a minimum set by law.

2. Where documentary evidence is required, suggestion that this should apply only for transactions concerning amounts equal to or higher than . . . special drawing rights as defined by the IMF (4,000 FF in 1979) .

3. This sum to be revised every three years.

4. Compulsory period for the preservation of business records to be set at not more than ten years.

5. This period to be the same as the period provided for by the law relating to the transactions in which the trader is concerned.

6. Existing legislation to be brought into line with the rules set out in the annex.

(b) The rules

These concern the value as evidence of reproductions of documents by micrography or computer storage. The following proposed reforms are set out as five rules:

PGI-81/WS/25 - page 38

1.1 All traders or other persons should, under certain conditions, be allowed to store as micrographic reproductions the books and documents relating to their transactions:

1.2 Original documents may be destroyed except in special cases (Article 1.2);

1.3 States may call for the presentation of originals if national law requires;

2. Reproductions and recordings made for traders should have the same value as evidence as paper documents under national law;

3. Reproductions and recordings must:

3.a correspond accurately to originals or processed information;

3.b be made systematically and with no omissions;

3.c be provided with permanent instructions designed to be preserved as long as the reproductions themselves;

3.d be stored carefully in systematic order and protected against any kind of deterioration;

3.e (1 to 4) be provided with annotations giving the names of those responsible for the reproduction, the nature of the document or information, place and date of reproduction, and any defects which have been observed;

4. Micrographic reproduction must satisfy the following conditions:

4.a it must offer an indelible, accurate and durable image of the original;

4.b it must make it possible to identify the equipment, the order of filming, and the people who carried it out;

4.c it must be legible and technically satisfactory, and be checked before the original is destroyed;

5. Rule 5 concerns only data-processing programmed.

(c) The commentary on the suggested rules (Annex 1)

1. We shall not deal here with comments on the recommendations relating to national legislation on evidence and on the ten-year conservation period.

2. The commentary on the rules gives many clarifications of the meaning attached by the experts to the various definitions. We shall deal here only with the following points concerning microfilm:

Article 1.1: micrograph: this term excludes microfilms of photocopies or of microfilms (counterparts) ;

Article 2: value of microfilm as evidence: a microfilm should have the same value as evidence as the original under national law so that originals may be destroyed. The experts did not accept the Portuguese representative's reservations about the value of COM microfilm as evidence;

Article 3: the experts did not adopt the suggestion of certification by public authority, because of the delays and additional costs involved in such a legal guarantee of conformity. They did not accept either, the suggestion of recognized organizations being entrusted with the making of reproductions and recordings, again because of the additional cost. They preferred technical guarantees of conformity, and gave the reasons for their choices and preferences in Rules 3 to 5.

B. Observations on the preliminary draft

(a) The recommendations on the need for documentary evidence do not fall within the scope of the present report. It may nevertheless be noted that by the modifications to Articles 1326 and 1341 to 1345 of the Civil Code, France has adopted changes in this respect which are in accordance with the proposals of the Council of Europe.

(b) The experts continually linked the rules on the value of micrographic reproductions as evidence with those on computer-stored information. Only Rule 5 sets out special conditions for data processing.

Some reservations may be made about this parallel treatment.

(c) The fact that the experts included lawyers specializing in Swiss, German and Swedish commercial law is reflected in a useful summary of recent changes in the respective legislations. Rules 2, 3 and 4 contain some of the guidelines worked out in the course of these changes and authorizing microfilm under certain guarantees.

These lawyers were not experts in micrography, however, and it is to be regretted that the working group did not consider it necessary to consult professional opinion on the technical problems involved.

In fact, though often very detailed, the suggested rules sometimes seem rather naïve .

The technical guarantees of conformity include neither a programme for micro-filming nor references to standards (though the commentary does not mention them briefly); nor do they cover quality controls or some of the precautions on formalities contained in the German and Swiss directives.

(d) It is a pity that the experts aimed only at facilitating business transactions. The destruction of originals, in particular, is of historical significance and it would be a good thing to have a recommendation preventing the unsupervised destruction of historical or family records.

(e) Finally, the definition of an indelible, true and durable image does not correspond to any current technical acceptation. France provides a typical example of the inadequate information of lawyers in this respect.

v. TECHNICAL AND LEGAL CONDITIONS FOR THE
USE OF MICROFORMS

Recent changes in the rules of documentary evidence have taken a variety of forms.

A. Changes in commercial law in the Federal Republic of Germany, Sweden and Switzerland

We have received no information on Austrian or Danish law.

PGI.-81/WS/25 - page 40

These changes involve the following principles:

(a) Legal principles

1. Authorization for most accounting records to be stored on image- or data-carrying media.
2. The reproduction must conform to the rules of normal accounting. It must correspond exactly to the original and be legible throughout the conservation period prescribed by law.
3. A reproduction has the same value as evidence as the original if statutory regulations have been followed.

(b) Legal instructions

These must be followed if the microfilm is to be valid as evidence. They vary from country to country, but their main conditions are broadly similar:

1. A preliminary work plan indicates the process employed, the documents to be reproduced, and all other information necessary to the understanding of the reader (who may be a tax official) .
2. The microfilming must follow exactly the same order as the accounts.
3. The process used must conform to quality standards.
4. A record must be kept of the titles of documents, place and date of filming, statements certifying the completeness of the filming, names of those responsible and any damage observed.
5. Technical checks on the film. Verification of defective or faulty images.
6. Technical standards for storage and filing must be observed. The original negative must be protected.
7. Technical standards for use and viewing must be observed.
8. Names of those responsible for each stage of filming, storing and use must be recorded.
9. A record must be kept of the destruction of original documents.
10. The film must be easily viewable by an authorized person without undue delay.

(c) Annex 1 of this report gives the text of the Federal German circular of 14 December 1976. Annex 2 gives the text of the Swiss order of 2 June 1976; Annex 3 the text of the Swiss working guidelines concerning microfilm.

It will be seen that the instructions in the Swiss code are stricter and more precise than those of the Federal German Ministry of Finance. They seem to me to correspond more closely to the recommendations of the 1975 Unesco report and to those of the experts in Canada, the United Kingdom and the United States.

It would be worth while comparing these instructions with those in Sweden.

B. Attempts at reforming the law on evidence in Canada, the United Kingdom and the United States

(a) The Canadian national standard

The method of the Canadian reform reflects a legal situation which is more complicated than that in European countries. In Europe, countries have one national law whereas Canada is burdened by several sets of sometimes archaic legislation. Standardization is made difficult by local particularisms, which it is perhaps not wise, for psychological reasons, to change too rapidly.

1. The studies embarked on by the task force in 1977 are not yet completed. They may lead to a change in the law of evidence in federal law (project of the Commission for Reform of the Federal Code).

2. On the other hand the lawyers possess in the national standard a very detailed and elaborate document which allows microfilm to become a form of evidence acceptable by the courts.

3. The technical recommendations of the national standard present analogies with the Swiss and German directives. Those relating to the microfilming programme, preparation of the documents to be microfilmed, the technique of filming, development, filing and storing, are very detailed and fulfil the requirements necessary for the production of high-quality microfilm.

The standard is less exacting when it comes to written procedure (records, certificates concerning recording and storage) , probably because of the clause on quality assurance.

4. The standard in fact calls for this altogether unusual further guarantee known as quality assurance, a checking and supervisory service carried out by a specialized company. This safeguard was suggested in another form in the 1975 Unesco report (§ IX), but Canada is the only country to have introduced it into its laws . This section of the standard is reproduced in Annex 4.

5. One may wonder whether this clause can really be put into practice since it will increase the cost of microfilming, unless the whole process is handed over to a recognized service company (as in the case of companies to survey public works). This idea is not likely to meet with acceptance in Europe, where legislators have as yet shown no inclination to move in this direction. It is nevertheless worth noting the principle and reserving judgement until we see how it works out in practice.

6. At all events, the Canadian procedure has already met with very favourable comment in Britain and the United States.

(b) Suggestions by United States lawyers

The digest recently made by American lawyers, commented on at length above, has provided a general survey of views on the value of microfilm as evidence.

There is also a suggested set of guidelines drawn up by an expert, Mr Robert F. Williams, which, although it has no official status, is based on very sound technical knowledge and on a synopsis of the conditions imposed by the courts in the matter of evidence.

He offers a series of recommendations which are quite close to the Canadian directives but adapted to American law and without the quality assurance clause.

PGI-81/WS/25 - page 42

Although these draft guidelines have the virtue of actually existing, they have no official status and there is no legal tradition in the matter. On the other hand, they are very close to official federal directives on archival microfilm and so may reflect a stage in the legal changes currently taking place in the United States.

We give an extract from the draft guidelines in Annex 5.

(c) Suggestions by English lawyers

The problem of the legal validity of microfilms was partly solved by the Civil Evidence Act of 1968 and the Stock Exchange and Companies Act of 1976. The rules followed by the courts do not however make microfilm automatically acceptable as evidence. It still depends on how strictly the filming operation is carried out.

There are no legal directives in the matter, only lawyers' suggestions concerning certificates of intention and authenticity, improvements in microfilming processes and security measures relating to originals.

None of these suggestions has been formulated definitely or in detail. They have no technical basis and provide little in the way of formal safeguards.

English experts plan to study the Canadian procedure as a preliminary to introducing changes in the law of evidence in their own country.

c. Four examples of incomplete solutions

(a) The French solution

1. Changes in the law of evidence

France is the first European country to have changed its law of evidence in the direction recommended by the Council of Europe.

Documentary evidence is no longer required except for transactions involving an amount fixed by decree (at present 5,000 FF) .

Some copies which fulfil the criteria of accuracy and durability may serve as evidence.

Parliamentary debates quote experimental standard AFNOR Z 42061, published in February 1980, as conforming to these criteria, but suggest that in future other processes may offer comparable security safeguards.

2. The dangers in these changes

The reform shows that there is a desire to adapt French legislation to modern management methods, but there are unknown factors which make these changes problematical and dangerous for companies:

neither commercial nor fiscal law has been changed. These both still require documents to be kept for ten years;

the AFNOR standard is not yet official and is challenged by foreign experts;

the cost of microfilming is extremely high in France, and would be even higher under the conditions prescribed by the standard. To this high cost must be added that of filing the records.

3. The French solution is still incomplete, and depends on technical requirements which are not yet practicable.

(b) The Italian solution

1. It deals only with business and government department records, and only allows a kind of substitute microfilming under very strict conditions:

the destruction of certain originals is forbidden for historical or legal reasons;

microfilming programmed are placed under the supervision of the State Public Archives;

technical quality standards are the same as those for archival microfilm.

2. The procedure is complicated and expensive. It does not correspond to the needs of commercial or industrial practice.

3. However, it does safeguard the interests of the cultural heritage. This being so, some of its requirements could be useful in relation to economic, social and technological history.

(c) Other solutions

Changes in Lebanese and Israeli law are too circumstantial and incomplete to give rise to suggestions.

Luxembourg and Spain have no legislation concerning microfilm. Portugal accepts a copy certified by a notary as the only valid proof. Greece and Turkey are distrustful of microfilm. In Holland, on the other hand, there is no formal legislation and assessment of the value of a microfilm as evidence is left to the courts. In 1975, Belgium authorized the keeping of certain accountancy documents on microfilm, and the Loto administration was recently authorized to use data-carrying media and microfilms for its accountancy records.

(d) Recommendations of the Council of Europe

1. The proposals of the Council of Europe are a positive contribution to the reform of the law of evidence. Such a reform is desirable, and is unanimously called for by lawyers and specialists in business law all over the world.

2. Allowing for modern management methods which use micrographic and computerized media also meets a real need observable in every sector of public opinion.

3. I nevertheless have certain reservations about some of the suggested rules, which sometimes leave important factors out of account:

the destruction of originals should be subject to stricter conditions, with the object of conserving documents of historical interest. Some documents which are no longer of interest for accounting or tax purposes may be of great interest for research;

a reproduction cannot be considered as having the same validity as the original; a reproduction must remain a copy (see decision of the French National Assembly, Bibliography, France, 5);

PGI-81/WS/25 - page 44

the general rules (Rules 3 and 4) are not sufficiently strict. They could usefully be modelled more closely on the instructions in the Swiss and German codes and the Canadian standard;

the definitions concerning reproduction (requiring an indelible, true and durable image) are not matched against any technical standards (Rule 5) .

4. To conclude, the recommendations of the Council of Europe are also incomplete. The Council would do well to consult people other than lawyers and economists for its projects, and in this particular case to ask for the opinions of historians or specialists in micrography.

VI. MICROFORMS AND ADMISSIBILITY AS EVIDENCE: THE NEED FOR REGULATIONS

Between 1940 and 1965 the development of microfilm was mainly the concern of scientific, cultural and documentary organizations like archives, libraries, documentation centres and government offices.

Since 1965, the enormous development of computer storage systems has given a new impetus to the use of microfilm in all kinds of ways. The new reproduction methods have spread to all sectors of everyday life, and to industry and business in particular.

We are not concerned here with magnetic recordings or computer files. Some countries, like Switzerland, the Federal Republic of Germany and Sweden have authorized their use under certain conditions. The Council of Europe has also suggested solutions to confer on them the value of evidence.

The present report deals only with microfilm and its derivatives (microfiches and reproductions on film-based media) .

The value of this type of microform as evidence may, however, vary in accordance with the reasons for which it was made. It may therefore be useful to recall that there are at least four different uses for microfilm records. There are:

1. the security microfilm;
2. the supplementary microfilm.

These two are documentation microfilms (this term is used to avoid confusion between archive microfilm made for archival purposes and archival-quality microfilm made to high-quality standards so as to be long-lasting.

But there are also:

3. the substitute microfilm used for administrative purposes;
4. the substitute microfilm increasingly used in business and industry to reduce the cost of storing original documents.

Solutions to the problem of its value as evidence could vary according to the type of microfilm involved.

A. Documentation and security microfilms

(a) This type of microform has been used for many years in archives, libraries, documentation centres and research laboratories.

1. It is used so that a copy of original documents exists if the originals themselves should happen to disappear. It can also be used where handling or other manipulation might cause harm to the original. It is thus a security microfilm.

In some countries there is a variant known as a preservation microfilm which is used to preserve the information in perishable documents by transferring it to a more stable medium.

2. It is used in documentation to facilitate historical research, information or scientific studies. It may also then be called a supplementary microfilm.

3. In neither case is there any question of destroying the originals. Such microfilms are used in order to protect the cultural heritage or to assist information, education or research. They are thus microfilms with a cultural or scientific purpose.

4. These microforms are made in accordance with strict instructions:

as regards the formalities for filing archives and arranging documents;

as regards methods of conservation and use (although these conditions are not always all complied with because of lack of funds and resources) ;

as regards technical standards of quality, generally the best despite the cost. In such cases, especially in the United States, they correspond to the idea of archival-quality microfilm.

(b) The value of these two kinds of microfilm as evidence

1. The question of the value of these two kinds of microfilms does not arise, They are copies for which the originals will always be available (except in case of accidental destruction) .

In addition the administrative and technical conditions imposed on their making guarantees them against any danger of falsification, and gives them a presumption of legal evidence if the case should arise.

2. There is nevertheless the fear that certain projected or actual changes (Council of Europe, France) may be a threat to this kind of microform if the terms indelible, true and durable are defined by the law according to standards which are different from those developed by the technical staff of the Public Records Office.

3. Production and quality standards for documentation microfilm (security and supplementary) ought to be subject to government regulations, and such regulations exist in the Federal Republic of Germany, Sweden and the United States.

E. Substitute microfilms in administrative and commercial law

(a) In archives and government offices

1. This kind of microfilm is as yet little used for archives because of its high cost, low return on investment and the problem of its admissibility as evidence.

2. It would offer great advantages in many respects such as security, saving of space and ease of consultation, but efficiency studies so far have shown that it is often preferable to preserve the originals and then destroy them after a certain

PGI-81/WS/25 - page 46

time. The difference between the costs of microfilming and those of storing originals tended to diminish during the 1970s, but since the oil crisis the cost of microfilming has become very high in Europe.

3. Some countries have drawn up regulations so that microforms made in government offices can be accepted as evidence (Federal Republic of Germany, Italy, Sweden) , but in most cases these authorizations apply only to very special kinds of document (day-to-day accounting, pension and insurance files, management, etc.).

4. These authorizations are also subject to strict regulations and instructions prescribing:

formalities to be observed in filing documents;

precautions to ensure security in filming and all other operations, including storage;

technical quality standards;

legal guarantees of authentication.

5. In Italy, limitations are imposed on the destruction of certain classes of document of historical or legal interest. This is a necessary measure, and also reflects the idea of archives control, which in most countries is the legal responsibility of the Public Records Office.

6. Any reform of the law of evidence should take into account these aspects of the use of microfilm in government offices.

(b) Substitute microfilms in commercial law

1. This problem has been solved by legislation in the Federal Republic of Germany, Sweden and some other countries. Microfilm thus may have the value of evidence provided that a strict set of rules is followed in the production process.

2. Canada has not adopted authoritative legislation. The official standard there tries to give microfilm the value of evidence by persuasion. It lays down strict technical rules governing production, and also contains a clause imposing a quality assurance which is in fact a legal control analogous to a second opinion.

3. The United States and the United Kingdom have not yet solved the problem satisfactorily, but say they are interested in the Canadian solution.

4. France and the Council of Europe have adopted a very eclectic attitude on the law of evidence, but the French solution is not based on satisfactory technical considerations.

The Council of Europe has been influenced by the German and Swiss solutions, but in a way that I consider to be very incomplete. In addition, the Council has failed to take into account the idea of cultural heritage in relation to the destruction of records of historical interest.

c. Suggestions

The following recommendations arise out of our examination of the various legislation in §IV, the categories mentioned in §V, and the observations in §VI, Sections A and B.

(a) Documentation microfilm

1. This is used by cultural, scientific and documentary organizations, and should conform to precise rules of production and conservation and very high-quality standards.

2. Although it has no value as evidence, it ought to be able to acquire it:
if the organization responsible for its production is given official recognition;
if the technical production standards are observed.

3. Regulations similar to those laid down by the Federal German Archives (Bibliography, Federal Republic of Germany, 6) or the United States (Bibliography, [United States, 2) could serve as a basis for international rules, via the International Council on Archives.

(b) Substitute microfilm in administration or archives

1. Authorization to microfilm can be granted only for certain types of document specified by national legislation.

2. Regulations similar to those laid down in the Federal Republic of Germany (Bibliography, Federal Republic of Germany, 5) or Italy (Bibliography, Italy, 3) could serve as a basis for microfilming authorizations.

3. The value of microfilms as evidence should be determined by:
official recognition of the organization responsible;
and observance of the regulations.

4. To these regulations should be added limitations on the destruction of originals of historical or legal interest. The regulations should also take into account the control exercised by Public Record Offices over administrative archives.

(c) Substitute microfilm in business

1. Swiss and Swedish legislation seems to provide the best examples concerning the recognition of the admissibility as evidence of microfilm in this field.

2. The Canadian standard's clause on quality assurance provides an excellent example of legal assessment giving an additional guarantee with a legal value.

3. We suggest consideration of an additional clause which would prevent the unsupervised destruction of economic and industrial records of historical, scientific or cultural value.

VII. ANNEXES

1. Microfilming of accounting documents in the Federal Republic of Germany: Law and circular of 14 December 1976 (Bibliography, C, Federal Republic of Germany, 4)
2. Microfilming of accounting documents in Switzerland: Order of the Federal Council of 2 June 1976 (Bibliography, C, Switzerland, 1)
3. Directives on the recording and conservation of accounting documents on microfilm: Instruction of the Swiss Federal Tax Office (1979) (Bibliography, C, Switzerland, 1)
4. Federal Standard of Canada: Extract concerning the quality assurance requirement (Bibliography, C, Canada, 2)
5. Microfilming of documents of legal interest (United, States) : Guidelines for implementing a legally acceptable microfilm system, by R.F. Williams (Bibliography, C, United States, 1, §7)
6. Microfilming of administrative documents (France) : Suggestions for the use of micrography (Bibliography, C, France, 15)

/The annexes follow in the original text/

annexe 1

Bundesgesetzblatt

3341

Teil I

Z 1997 A

1976	Ausgegeben zu Bonn am 17. Dezember 1976	Nr. 143
------	---	---------

Tag	Inhalt	Seite
14. 12. 76	Einführungsgesetz zur Abgabenordnung (EGAO 1977) 600-1, 604-1, 610-6-8 (Artikel 1), 610-6-4, 610-8-5, 610-7, 610-10, 611-1, 611-1-1, 611-4, 611-5, 611-5-1, 611-6-3 (Artikel 1), 611-7 (Artikel 1), 611-8-2 (Artikel 1), 611-10, 611-15, 611-16, 612-1, 612-2, 612-3, 612-4, 612-5, 612-6, 612-7, 612-8, 612-9, 612-10, 612-11, 612-12, 612-14, 613-1, 613-3, 621-1, 625-1, 653-5, 642-1, 201-3, 201-4, 202-4, 2126-9, 2129-4, 2129-5, 2129-8, 213-13, 2172-1, 2182-3, 2251-1, 2330-9, 242-1, 29-1, 310-4, 350-1, 365-1, 4100-1, 4121-1, 54-1, 703-1, 702-3, 704-4, 705-1, 705-2, 707-6 (Artikel 1), 707-9, 754-3, 7400-3, 750-13, 753-1, 753-4, 2129-3, 7610-1, 7612-1, 7690-1, 780-1, 780-3, 7840-3, 7845-1, 7847-9, 7847-11, 790-15, 800-7, 800-9, 800-18, 800-21, 801-1, 810-1, 810-31, 84-2, 85-1, 9240-1, 9241-1, 930-6, 940-9, 312-1, 4139-1, 4139-2, 610-8, 701-1, 703-11-1, 7411-1, 750-9, 752-1, 7842-1, 9500-4, 610-1, 610-1-1, 610-1-2, 610-2, 610-2-1, 610-2-2, 610-3, 610-3-1, 610-4-2, 610-4-5, 610-4-6, 610-4-7, 610-4-8, 610-4-9, 610-5-2, 610-8-3, 611-14, 2030-10-2, 2330-7, 2330-7-2, 7843-1, 7844-1	3341
10. 12. 76	Verordnung über die Höhe der Beiträge der Binnenschifffahrt im Haushaltsjahr 1977	3385
13. 12. 76	Fünfte Verordnung zur Änderung der Verordnung zur Ausführung des Personenstandsgesetzes 211-1-1	3386
13. 12. 76	Zweite Verordnung zum Waffengesetz (2. WaffV) 7133-2-2	3387

Einführungsgesetz zur Abgabenordnung (EGAO 1977)

Vom 14. Dezember 1976

Inhaltsübersicht

Artikel	Artikel
Erster Abschnitt	4. Titel
Anderung von Gesetzen auf dem Gebiet des Finanzwesens	Anderung von Gesetzen auf dem Gebiet des Wirtschaftsrechts
1 bis 38	59 bis 81
Zweiter Abschnitt	5. Titel
Anpassung weiterer Bundesgesetze	Anderung von Gesetzen auf dem Gebiet des Arbeitsrechts, der Sozialversicherung und der Kriegsopferversorgung
1. Titel	82 bis 90
Anderung von Gesetzen auf dem Gebiet des Rechts der Verwaltung	6. Titel
39 bis 52	Anderung von Gesetzen auf dem Gebiet des Post- und Fernmeldewesens sowie des Verkehrswesens
2. Titel	91 bis 94
Anderung von Gesetzen auf dem Gebiet der Rechtspflege, des Zivilrechts und des Strafrechts	7. Titel
53 bis 57	Anderung anderer Gesetze
3. Titel	95
Anderung von Gesetzen auf dem Gebiet des Verteidigungsrechts	8. Titel
58	Außerkräfttreten von Vorschriften
	96
	Dritter Abschnitt
	Schlussvorschriften
	97 bis 102

Artikel 56
Handelsgesetzbuch

Das Handelsgesetzbuch wird wie folgt geändert:

1. § 38 Abs. 2 erhält folgende Fassung:
- „(2) Er ist verpflichtet, eine mit der Urschrift übereinstimmende Wiedergabe der abgesandten Handelsbriefe (Kopie, Abdruck, Abschrift oder sonstige Wiedergabe des Wortlauts auf einem Schrift-, Bild- oder anderen Datenträger) zurückzubehalten.“

2. In § 39 wird nach Absatz 2 folgender Absatz 2 a eingefügt:

„(2 a) Bei der Aufstellung des Inventars darf der Bestand der Vermögensgegenstände nach Art, Menge und Wert auch mit Hilfe anerkannter mathematisch-statistischer Methoden auf Grund von Stichproben ermittelt werden. Das Verfahren muß den Grundsätzen ordnungsmäßiger Buchführung entsprechen. Der Aussagewert des auf diese Weise aufgestellten Inventars muß dem Aussagewert eines auf Grund einer körperlichen Bestandsaufnahme aufgestellten Inventars gleichkommen.“

3. § 43 erhält folgende Fassung:

„§ 43

(1) Bei der Führung der Handelsbücher und bei den sonst erforderlichen Aufzeichnungen hat sich der Kaufmann einer lebenden Sprache zu bedienen. Werden Abkürzungen, Ziffern, Buchstaben oder Symbole verwendet, muß im Einzelfall deren Bedeutung eindeutig festliegen.

(2) Die Eintragungen in Büchern und die sonst erforderlichen Aufzeichnungen müssen vollständig, richtig, zeitgerecht und geordnet vorgenommen werden.

(3) Eine Eintragung oder eine Aufzeichnung darf nicht in einer Weise verändert werden, daß der ursprüngliche Inhalt nicht mehr feststellbar ist. Auch solche Veränderungen dürfen nicht vorgenommen werden, deren Beschaffenheit es ungewiß läßt, ob sie ursprünglich oder erst später gemacht worden sind.

(4) Die Handelsbücher und die sonst erforderlichen Aufzeichnungen können auch in der geordneten Ablage von Belegen bestehen oder auf Datenträgern geführt werden, soweit diese Formen der Buchführung einschließlich des dabei angewandten Verfahrens den Grundsätzen ordnungsmäßiger Buchführung entsprechen. Bei der Führung der Handelsbücher und der sonst erforderlichen Aufzeichnungen auf Datenträgern muß insbesondere sichergestellt sein, daß die Daten während der Dauer der Aufbewahrungsfrist verfügbar sind und jederzeit innerhalb angemessener Frist lesbar gemacht werden können. Absätze 1 bis 3 gelten sinngemäß.“

4. § 44 erhält folgende Fassung:

„§ 44

(1) Jeder Kaufmann ist verpflichtet, die folgenden Unterlagen geordnet aufzubewahren:

1. Handelsbücher, Inventare, Bilanzen sowie die zu ihrem Verständnis erforderlichen Arbeitsanweisungen und sonstigen Organisationsunterlagen,
2. die empfangenen Handelsbriefe,
3. Wiedergaben der abgesandten Handelsbriefe,
4. Belege für Buchungen in den von ihm nach § 38 Abs. 1 zu führenden Büchern (Buchungsbelege).

(2) Handelsbriefe sind nur Schriftstücke, die ein Handelsgeschäft betreffen.

(3) Mit Ausnahme der Bilanz können die in Absatz 1 aufgeführten Unterlagen auch als Wiedergabe auf einem Bildträger oder auf anderen Datenträgern aufbewahrt werden, wenn dies den Grundsätzen ordnungsmäßiger Buchführung entspricht und sichergestellt ist, daß die Wiedergaben oder die Daten

1. mit den empfangenen Handelsbriefen und den Buchungsbelegen bildlich und mit den anderen Unterlagen inhaltlich übereinstimmen, wenn sie lesbar gemacht werden,
2. während der Dauer der Aufbewahrungsfrist verfügbar sind und jederzeit innerhalb angemessener Frist lesbar gemacht werden können.

Sind Unterlagen auf Grund des § 43 Abs. 4 Satz 1 auf Datenträgern hergestellt worden, können statt des Datenträgers die Daten auch ausgedruckt aufbewahrt werden; die ausgedruckten Unterlagen können auch nach Satz 1 aufbewahrt werden.

(4) Die in Absatz 1 Nr. 1 aufgeführten Unterlagen sind zehn Jahre, die sonstigen in Absatz 1 aufgeführten Unterlagen sechs Jahre aufzubewahren.

(5) Die Aufbewahrungsfrist beginnt mit dem Schluß des Kalenderjahres, in dem die letzte Eintragung in das Handelsbuch gemacht, das Inventar aufgestellt, die Bilanz festgestellt, der Handelsbrief empfangen oder abgesandt oder der Buchungsbeleg entstanden ist.“

5. Die §§ 44 a, 44 b werden aufgehoben.

6. § 47 a erhält folgende Fassung:

„§ 47 a

Wer aufzubewahrende Unterlagen nur in der Form einer Wiedergabe auf einem Bildträger oder auf anderen Datenträgern vorlegen kann, ist verpflichtet, auf seine Kosten diejenigen Hilfsmittel zur Verfügung zu stellen, die erforderlich sind, um die Unterlagen lesbar zu machen; soweit erforderlich, hat er die Unterlagen auf seine Kosten auszudrucken oder ohne Hilfsmittel lesbare Reproduktionen beizubringen.“

Anlage

zum BMWF-Schreiben vom 21. 12. 1971
— F/IV B 7 — S 1160 c — 5/71 —

Grundsätze für die Aufzeichnung gesetzlich aufbewahrungspflichtiger Unterlagen auf Bildträgern

1 Allgemeines

Werden aufbewahrungspflichtige Unterlagen auf Bildträger aufgezeichnet und nicht das Originalschriftgut aufbewahrt, so muß sichergestellt sein, daß das hierbei angewandte Verfahren den Grundsätzen der Ordnungsmäßigkeit entspricht und die Wiedergabe mit der Urschrift übereinstimmt.

2 Arbeitsanweisung

Das Verfahren für die Aufzeichnung der Unterlagen auf Bildträger und für die Aufbewahrung dieser Bildträger ist in einer Arbeitsanweisung des Aufbewahrungspflichtigen schriftlich festzulegen, die den nachstehenden Grundsätzen zu entsprechen hat.

3 Aufzeichnung

30 Ordnungsprinzip

300 Das Ordnungsprinzip der Aufzeichnung auf Bildträger ist in der Arbeitsanweisung zu beschreiben. Es muß einem sachverständigen Dritten möglich sein, jede Aufzeichnung in angemessener Zeit aufzufinden.

301 Die Bildträger müssen dem Aufbewahrungspflichtigen eindeutig zugeordnet werden können.

302 Setzt sich der gemäß Arbeitsanweisung aufzeichnende Inhalt eines Schriftstückes auf der Rückseite fort, so ist diese derart mitzufassen, daß die Aufzeichnungen im Zusammenhang stehen.

303 Rißstellen an Bildträgern müssen erkennbar bleiben.

4 Kontrolle

41 Verfahrenskontrolle

Über die Aufzeichnung ist ein Protokoll zu führen, das folgende Angaben enthält:

— Art und Umfang des aufgezeichneten Schriftgutes

— Ort und Datum der Aufzeichnung

— Erklärung über die unveränderte und vollständige Aufzeichnung der übernommenen Unterlagen

Diese Bescheinigung ist vom Aufzeichner zu unterschreiben und, wenn sie nicht mit aufgezeichnet wird, im Original aufzubewahren.

42 Bildträgerkontrolle

Nach der Aufzeichnung muß der Bildträger auf technische Mängel überprüft werden. Fehlerhafte Aufzeichnungen sind zu wiederholen, andernfalls ist das Original aufzubewahren. Das Ergebnis der Kontrolle ist in einem Vermerk festzuhalten.

5 Aufbewahrung

Die Bildträger sind sorgfältig und geordnet aufzubewahren. Sie können auch als Einzelbilder aufbewahrt werden, wenn ihre Belegfunktion durch ein Ordnungsprinzip sichergestellt wird, das in der Arbeitsanweisung festgelegt ist. Die Aufzeichnungen müssen für die Dauer der gesetzlichen Aufbewahrungsfristen wiedergegeben werden können.

6 Lesen und Wiedergeben

Für die Wiedergabe der Aufzeichnungen sind geeignete Lesegeräte bereitzustellen. Es muß sichergestellt sein, daß Reproduktionen in angemessener Zeit angefertigt werden können.

7 Vernichtung der Unterlagen

Die aufgezeichneten Unterlagen können bei Beachtung dieser Grundsätze vernichtet werden, soweit sie nicht nach dem Gesetz im Original aufbewahrt werden müssen.

annexe 2

Ordonnance concernant l'enregistrement des documents à conserver

(Du 2 juin 1976)

Le Conseil fédéral suisse,

vu l'article 962, 2^e alinéa, du code des obligations ²⁾,

arrête:

Article premier

Instructions de travail

¹ Toute personne astreinte à conserver des documents établit des instructions de travail expliquant les enregistrements. Elle fixe en particulier l'organisation, la compétence et les prescriptions techniques pour l'enregistrement et la reproduction.

² Les instructions de travail doivent permettre à un tiers qualifié de consulter chaque enregistrement en un temps raisonnable.

³ Les instructions de travail seront conservées aussi longtemps que les enregistrements.

Art. 2

Régularité de la comptabilité

Le procédé d'enregistrement ne doit pas altérer la tenue régulière de la comptabilité.

Art. 3

Régularité de l'enregistrement

¹ Les documents seront enregistrés de façon systématique et sans lacune. Pour les livres et les pièces comptables, l'enregistrement doit être conforme au système de comptabilité adopté et respecter l'ordre exact des inscriptions.

² Les enregistrements et leur reproduction doivent correspondre aux documents.

Art. 4

Utilisation

¹ La personne astreinte à conserver des documents veille à ce que les enregistrements soient accessibles en tout temps, durant le délai de conservation, et qu'ils puissent être lus sans difficulté.

² L'examen des enregistrements ne devra pas être plus difficile ni plus long que celui des documents.

Art. 5

Indication de l'entreprise

Les enregistrements indiqueront le nom de l'entreprise astreinte à conserver les documents.

Art. 6

Indications relatives à l'enregistrement

Les indications suivantes seront conservées avec les enregistrements:

- a. Nom des personnes chargées de l'enregistrement;
- b. Genre et nombre des documents enregistrés;
- c. Lieu et date de l'enregistrement;
- d. Dommages constatés pendant l'enregistrement ou la conservation sur les documents et les supports de données ou d'images.

Art. 7

Examen des déficiences

Dès la fin de l'enregistrement, il faut faire immédiatement un contrôle destiné à déceler les déficiences, et recommencer l'enregistrement si des défauts sont constatés.

Art. 8

Conservation

Les supports de données et d'images seront conservés avec soin, dans un ordre systématique, et protégés contre toute influence dommageable.

Art. 9

Reproduction

¹ La personne astreinte à conserver des documents met, à ses frais, à la disposition de la personne ayant un droit de regard, les instruments et le personnel nécessaires pour qu'elle puisse lire les enregistrements sans difficulté.

² L'ayant droit peut demander la production de certains documents déterminés sous une forme directement lisible.

³ Au début d'un contrôle préalablement annoncé, les enregistrements des livres correspondant à la période fixée par l'ayant droit seront produits sous une forme directement lisible.

Art. 10

Responsabilité

La personne astreinte à conserver des documents reste responsable de leur enregistrement exact, de la conservation et de la reproduction, même lorsqu'elle en a confié l'exécution à un tiers.

Art. 11

Entrée en vigueur

La présente ordonnance entre en vigueur le 1^{er} juillet 1976.

annexe 3

Directives pour l'établissement d'instructions de travail concernant l'enregistrement et la conservation de documents sur des supports d'images (microfilm) 3

Compétence 30

Il faut régler la répartition des compétences et fonctions notamment pour

- la désignation et le choix des documents qui devront être microfilmés,
- la mise en microfilms de ces documents,
- le développement des microfilms exposés,
- le traitement ultérieur et la conservation des microfilms,
- l'établissement de copies de microfilms et d'agrandissements à la demande d'ayants droit,
- la destruction de documents enregistrés (genre des documents et période qu'ils couvrent, date et mode de destruction),
- la mise à disposition et l'entretien des appareils nécessaires à l'enregistrement et à la reproduction.

Régularité des enregistrements 31

La régularité des enregistrements doit être parfaitement assurée, depuis la mise en microfilms jusqu'à la reproduction, par des mesures d'ordre technique, d'organisation et de contrôle. 310

Il faut notamment établir un procès-verbal des opérations de mise en microfilms et de contrôle. 311

Préparation des documents 32

Le service compétent doit préparer les documents qui seront microfilmés et les remettre sous une forme qui convienne à l'enregistrement, dans un ordre systématique, et accompagnés notamment d'un mandat de mise en microfilms qui donne les indications suivantes: 320

- genre, provenance et appartenance des documents,
- système de classement (par ex. alphabétique, chronologique, numérique),
- cercle des documents à microfilmer (nombre, période qu'ils couvrent, numéros des pièces justificatives, etc.),
- but de l'enregistrement,
- durée de conservation et destinataire des enregistrements,
- mandant.

Les pièces comptables ne peuvent être enregistrées en vue de leur conservation, que lorsqu'elles contiennent toutes les annotations utiles permettant de prouver qu'elles ont été comptabilisées. 321

Les pièces comptables seront en général enregistrées dans l'ordre de classement adopté pour leur comptabilisation. 322

33 Réalisation de l'enregistrement

330 Le déroulement de l'enregistrement doit figurer sur le microfilm (avec indication du mandat de mise en microfilms, du nom des personnes qui procèdent à l'enregistrement et désignation du début et de la fin).

331 La relation matérielle entre les documents enregistrés doit rester parfaitement reconnaissable. Il faudra par exemple:

- si les enregistrements couvrent plusieurs rouleaux de film, noter des indications concernant les rouleaux qui précèdent et qui suivent,
- si l'on utilise un procédé d'images séparées (jacket ou microfiche) respecter le système de classement,
- si l'on microfilme des documents écrits recto verso, faire suivre directement la page recto par la page verso.

332 Lorsque des défauts sont constatés, il faut refaire immédiatement l'enregistrement et indiquer sur le nouvel enregistrement qu'il s'agit d'une répétition.

333 Si certains documents ne peuvent pas être enregistrés, il faut le noter lors de la mise en microfilms.

34 Procès-verbal

- 340 Les services compétents pour enregistrer et conserver les documents établiront un procès-verbal de leur activité.
- 341 Le procès-verbal contiendra des indications notamment sur:
- le mandat de mise en microfilm,
 - le lieu et la date de l'enregistrement,
 - le nom des personnes qui collaborent à l'enregistrement et au traitement ultérieur,
 - le contrôle de l'enregistrement et la correction des défauts,
 - la destruction des documents.
- 342 Le procès-verbal doit être conservé aussi longtemps que les documents qu'il concerne.

35 Sécurité des enregistrements

- 350 Il convient de prendre les mesures d'organisation et d'ordre technique afin de garantir la sécurité et d'empêcher toute altération des enregistrements durant tout le délai de conservation.
- 351 Ces mesures doivent tendre en particulier à protéger les enregistrements contre toute atteinte provoquée par une température inadéquate, l'humidité, des altérations mécaniques ou chimiques et par l'intervention de tiers non autorisés.
- 352 Pour protéger les enregistrements, on pourra prendre des mesures telles que:
- utilisation des matériaux et de procédés de traitement conformes aux normes techniques existantes,
 - examen des microfilms développés pour contrôler l'intégralité des enregistrements, la qualité de l'image et les propriétés chimiques,
 - examen de l'état de conservation des enregistrements durant tout le délai de conservation,
 - maintien de conditions adéquates pour la garde d'archives.
- 353 Les défauts ou dommages constatés pendant la durée de conservation devront être corrigés de façon appropriée (par ex. repiquage, lavage, collage de parties coupées, répétition de l'enregistrement). Les défauts et leur corrections seront notés dans un procès-verbal.

Consultation et contrôle comptable

- 360 Les instructions de travail doivent permettre à un tiers qualifié de consulter tous les enregistrements en un temps raisonnable. 360
- A la demande de la personne ayant un droit de regard, les enregistrements doivent lui être présentés sous une forme lisible sans l'aide d'instruments (par agrandissements). 361
- Au début d'un contrôle préalablement annoncé 362
- les enregistrements des livres correspondant à la période fixée par l'ayant droit doivent être produits sous une forme lisible sans l'aide d'instruments (par agrandissements),
 - les appareils lecteurs-agrandisseurs doivent être mis à disposition,
 - les mesures nécessaires doivent être prises pour permettre d'établir rapidement des agrandissements sur demande.

annexe 4

9. QUALITY ASSURANCE (See note on next page)

ASSURANCE DE LA QUALITÉ (voir la remarque à la page suivante)

9.1 The credibility of a microfilm program is dependent upon the assurance that it is believable and reliable. The only secure way to impart this credibility is by a system of activities whose purpose is to provide an assurance that the overall control of the operations and the quality of the product is being carried out effectively at all stages. This system of activities constitutes quality assurance.

Le crédit dont peut jouir un programme de reproduction dépend de l'assurance que l'on peut avoir de sa fiabilité. La seule façon certaine de lui accorder toute crédibilité consiste à recourir à un service ayant pour objectif de s'assurer que le contrôle du déroulement des opérations et de la qualité du produit est effectué efficacement à chaque étape. Ce service a pour but l'assurance de la qualité.

9.2 The quality assurance system employed must involve a continuing evaluation of the adequacy and effectiveness of the inspection and control of the operations with a view to having corrective measures instituted where necessary. This includes verification, audits and quality factors of the operations described in sections 6, 7, 8.

Le service de l'assurance de la qualité doit constamment évaluer la pertinence et l'efficacité des méthodes d'inspection et de contrôle des opérations, tout en apportant les modifications qui s'imposent, à savoir: vérifications techniques administratives et qualitatives décrites dans les sections 6, 7 et 8.

9.3 To have the same person(s) who conducts inspection and quality control during the operations perform the quality assurance activities is not sufficient to guarantee credibility. A periodic quality assurance audit must be made by a qualified independent group or person in addition to the regular inspection. This will provide a method of assuring that the overall control of the microfilm program is maintained.

Le fait que les personnes chargées de s'assurer de la qualité effectuent également les inspections et les contrôles de qualité habituels au cours des opérations, ne suffit pas à garantir la crédibilité du programme. Il est donc nécessaire qu'une personne ou qu'un groupe de personnes qualifiées indépendant effectue des vérifications périodiques supplémentaires pour veiller à ce que toutes les exigences de contrôle du programme soient satisfaites.

9.4 The quality assurance system of evaluation, verification, audits, must form part of the written procedures and the manual, and all results recorded with descriptions, when necessary, of corrective actions that have been taken

Les méthodes d'évaluation et de vérification du service de l'assurance de la qualité doivent être précisées dans les directives écrites et dans le manuel; tous les résultats doivent être notés et accompagnés au besoin, des modifications apportées.

9.5 The user or the customer receiving the microfilm is not always in a position to evaluate the microfilm produced, therefore the obligation to produce a product of consistently acceptable quality lies with those responsible for the preparation of documents, filming, processing and inspection,

L'utilisateur ou le client qui reçoit les microfilms n'est pas toujours en mesure d'en évaluer la qualité, c'est pourquoi il incombe aux personnes responsables de la préparation des documents, de la prise de vue, du développement et de l'inspection de réaliser un produit de qualité acceptable et soutenue.

NOTE: Quality assurance should not be confused with inspection, process or quality control, or process checking, since these are functions carried out during the microfilming process to ensure that the product is satisfactory within the manufacturing specifications for the product and is the method of determining whether standards have been met. Inspection and quality control operations are described in NMA MS23 (in preparation).

REMARQUE: L'assurance de la qualité ne doit pas être confondue avec l'inspection, le contrôle des opérations et de la qualité qui est effectué au cours de la reproduction sur microfilms pour s'assurer que le produit satisfait aux exigences de fabrication prescrites et qui permet de déterminer la conformité aux normes concernées. Les méthodes d'inspection et de contrôle de la qualité sont décrites dans la norme MS23 de la NMA (en cours de préparation).

annexe 5

GUIDE LINES FOR IMPLEMENTING A LEGALLY ACCEPTABLE MICROFILM SYSTEM

By

Robert F. Williams

Micrographics & Records
Management Consultant

Introduction

Legality of Microfilm manifests the increasing legal acceptance of microfilm records. However, this acceptance of microfilm is provisional because certain conditions must be met with respect to the processes by which the film is created and displayed. It is essential therefore that those who are responsible for authorizing specific microfilm applications carefully review and thoroughly understand the pertinent laws and regulations. In addition, those who implement microfilm systems should know about and adhere to the specific operational conditions upon which these laws and regulations stipulate their acceptance of microfilm.

The purpose of this "how-to-do" section of *Legality of Microfilm* is twofold:

First, to identify the conditions upon which the acceptance of microfilm may be based, and

Second, to delineate how those conditions could be met and thereby to detail how a microfilm system might be configured to meet the microfilm laws and regulations.

Legal Vs. Archival Vs. Quality Control Requirements

This implementation section addresses three distinct types of requirements: legal, quality

control and archival. Legal requirements are those conditions which must be satisfied in order for a microfilmed record to be admitted into a court of law or before a regulatory authority. An example is the satisfactory identification of the record(s) being submitted. Legal requirements are the most fundamental and, therefore, the most important to satisfy when microfilmed images, or paper enlargements thereof, are submitted into a legal proceeding.

Quality control requirements are procedures to achieve a consistently high grade product. Every microfilm operation should utilize some quality controls in the production (preparation, filming, processing, inspection, duplication, etc.) of microfilm. An essential quality control requirement is the evaluation of background density.

Archival requirements are those which must be satisfied in order for the microfilm to last indefinitely, i.e. for many centuries. An example is storing the film in an environment where the relative humidity ranges between 20 to 40 percent and any changes do not exceed a five percent deviation within a 24 hour period.

It is very important that these legal, quality control and archival requirements be considered in their proper perspective. Although these different types of requirements are not interdependent, they are interrelated in what are sometimes nebulous and ambiguous ways. Three examples illustrate the potential complexity of the situation.

First: many regulations call for the production of archival film. Achieving archival quality, however, does not assure acceptance of that film in a legal proceeding. Conversely, microfilm that satisfies all of the legal requirements of a court or regulatory proceeding may not be archival.

Second: micrographic quality controls such as density and resolution tests are an essential part of producing consistently good

microfilm. Although strongly recommended, quality controls are not necessarily mandatory to admit microfilm in a legal proceeding. Micrographic quality controls are desirable from a legal standpoint because they strengthen the credibility of the microfilming system. Quality microfilm imbues an added sense of accuracy, reliability and trustworthiness in the process of microfilming and thereby enhances the acceptance of the microfilm.

Third: in many instances archival requirements are stipulated in the laws and regulations to denote excellence in the quality of the microfilm, not necessarily to ensure that the filmed records last indefinitely. Unquestionably, archival microfilm is the highest quality, but excellent quality microfilm does not necessarily have to be archival. The ultimate acceptance of microfilm in a legal proceeding is not conditioned upon whether or not the film is archival.

Legal Conditions for Accepting Microfilm

The term "legal conditions," as it is used in this section, is defined as stipulation for the admissibility in evidence of microfilmed records that is included in one or more of the laws and regulations presented in *Legality of Microfilm*. A legal condition can be one or a combination of legal, quality control or archival requirements. Because of the previously identified complexity in the relationship of these three types of requirements, it would be an oversimplification in many instances to categorize the legal conditions in this "how-to-do" section as solely being legal, quality control or archival requirements. Depending upon the situation, many of the conditions could be considered as different requirements in different contexts or as multiple requirements at the same time.

In researching the *Legality of Microfilm*, more than 25 potential conditions have been identified for the legal acceptance of

microfilm copies. They are organized into three groups: supplies, equipment and procedures.

1. Supplies used to create and reproduce microimages.
 - Original film
 - Duplicating film
 - Materials in which microfilm is stored.
 - Specifications for materials used in microforms besides film.
2. Equipment used to create and display microimages on film.
 - Camera to expose the film
 - Processor to develop the film
 - Duplicator to create a copy of the microfilm
 - Reader to enlarge the microimages for viewing
 - Reader-printer or printer to create an enlarged paper copy of the microimages
3. Procedures for creating, storing and retrieving microimages. These are identified first by function within the overall microfilming system and second by specific task within each function.
 - Document Preparation
 - Microfilming
 - Microfilming in the "regular course of business"
 - Microfilming in a way "which accurately reproduces the original or forms a durable medium for so reproducing the original"
 - Identifying the microfilmed records
 - Indexing the microfilmed records
 - Using an approved microformat

- Quality Controls
 - Verifying the completeness of the microimages against the original records
 - Reducing the residual thiosulphate (hype) on wet processed silver film to an approved level
 - Attaining acceptable background density on the microfilm
 - Achieving satisfactory resolution and clarity of the microimages
- Packaging
 - Splicing roll film in such a way as to ensure strength and integrity
 - Labeling the microform accurately and completely to ensure prompt retrieval
- Storage
 - Duplicate security copy
 - Atmospheric conditions
 - Periodic review of master film
- Retrieval
 - Timeliness (speed)
 - Hard copy (paper) reproduction
 - Polarity of prints
 - Blow back size
 - Responsibility for furnishing the retrieval equipment

In addition to all of these conditions for the legal acceptance of microfilm, certain laws and regulations have stipulations regarding destruction of the records (the original paper) after they have been filmed as well as the film itself when it has completed its scheduled retention.

It should be noted that not all of the laws and regulations contain all of the more than 25 possible conditions; however, some of these conditions are included in a great many different laws and regulations. Accordingly, the laws which are deemed relevant to each microfilm application should be reviewed carefully to determine which conditions are applicable,

Before considering how a microfilm system could be implemented to meet the many different conditions of microfilm laws and regulations, two important points must be underscored.

First, the information that follows in this section is not presented as legal advice. Rather, it is offered as a micrographics guideline for implementing a microfilm system that should be legally acceptable.

Second, it should not be inferred that there is only one way to implement a legally acceptable microfilm system. In fact, there are many different ways. Thus, the specific guidelines which are presented should be viewed as suggestions, not rules.

The “how-to-do”* guidelines presented in this section are organized into three parts: supplies, equipment and procedures. Within each of these subdivisions, the specific legal conditions are identified together with proposed courses of action to satisfy those conditions.

1. SUPPLIES

Original Film

Three general types of original film are available: wet processed silver, dry processed silver and chemically updatable. Wet processed silver film is the most preferred in the laws and regulations. Specifically, it is film which meets the following American National Standards Institute (ANSI) standards:

- ANSI PH 1.25-1976, Specifications for Safety Photographic Film,
- ANSI PH 1.28-1976, Specifications for Photographic Film for Archival Records, Silver-Gelatin Type, on Cellulose Ester Base,
- ANSI PH 1.41-1976, Specifications for Photographic Film for Archival Records, Silver-Gelatin Type, on Polyester Base, and

annexe 6

La décision a été prise, sur la base du rapport dont nous venons de donner les éléments indispensables, de se lancer dans une application micrographique. Trois grands domaines doivent alors être étudiés et organisés :

- la préparation des documents,
- la production des microformes,
- l'exploitation des microformes.

L'organisation mise en place devra, par la suite, faire l'objet d'un entretien permanent.

La préparation a pour objet d'une part de faciliter la prise en charge des dossiers existants en vue de leur microfilmage en les classant, triant..., d'autre part de réfléchir à la définition des documents futurs dans une optique micrographique.

La production consiste à assurer la réalisation des supports micrographiques à partir des documents qui ont été mis en état. Ce domaine est particulièrement important lorsque le service décide d'acquérir son propre matériel et de constituer son ou ses propres ateliers. Il l'est évidemment beaucoup moins lorsqu'il est fait appel à une entreprise de travail à façon.

L'exploitation a pour but de satisfaire les besoins des utilisateurs par mise à leur disposition des microformes et des appareils de lecture et de restitution sur papier.

1. Préparation des documents

Organiser une application consiste d'abord à préparer les dossiers destinés au microfilmage. Cette phase préparatoire est généralement longue dans le temps et lourde par la charge de travail qu'elle représente. Elle est essentielle. De sa réalisation dépendront la qualité et la fiabilité des microformes destinées à être exploitées.

Le microfilmage dans le cas d'une opération de transfert d'informations d'un support papier à un support film, est normalement l'occasion d'une mise en ordre des dossiers.

En bonne logique, les dossiers devraient toujours être tenus en état et mis à jour. L'expérience montre que ce n'est pas souvent le cas car cette tâche n'apparaît généralement pas prioritaire au service détenteur. Comme la micrographie a pour effet de figer sur un support durable les informations contenues sur des supports papier, une réflexion est nécessaire pour juger de l'utilité d'un tel enregistrement pour tous les documents détenus dans un dossier. La pérennité du support film s'oppose à l'intérêt souvent temporellement limité des informations portées sur un document papier. Une sélection est donc recommandée.

La durée de cette phase préparatoire est souvent sous-estimée. Il convient de prévoir très largement les délais de préparation administrative et technique des dossiers avant microfilmage. Une application micrographique doit prendre en charge un existant documentaire, héritage d'un

passé ignorant les contraintes spécifiques de la technique micrographique. Cette prise en charge justifie la lourdeur des opérations préalables. Une fois l'application décidée, il est indispensable de porter toute son attention sur la conception, la définition et le dessin des documents futurs afin de les adapter à la technique utilisée. Une refonte des imprimés est parfois nécessaire et conseillée afin de valoriser la qualité des prises de vues. Ainsi donc doit-on envisager cette phase préparatoire sous le double aspect d'une prise en charge du passé et d'une prise en charge du futur.

1.1. Prise en charge du passé

Le passé est constitué par le stock des documents existant dans un service au moment où l'application est décidée. Ces documents doivent subir une double préparation aux plans administratif et technique.

Au plan administratif

Les documents doivent être **classés**. Ce classement détermine les séquences de microfilmage à réaliser. Les documents doivent être ordonnés et si possible numérotés. Ils seront transmis aux opérateurs chargés du microfilmage dans un ordre qui déterminera celui de la prise de vues.

Le classement des documents doit répondre aux exigences spécifiques du microfilmage : ainsi, **les documents les plus anciens doivent se trouver en tête et les plus récents en fin de dossiers**. L'exploitation des supports micrographiques est séquentielle quel que soit le support choisi, film ou fiche. La différence des deux types de supports tient au nombre de vues enregistrées (de 2 500 sur les films à une centaine sur les fiches). Si les microfiches permettent, à l'usager, par la constitution d'un index et par leur structure, d'avoir accès à l'information désirée sans avoir à balayer l'ensemble des vues enregistrées, il n'en demeure pas moins que l'enregistrement des vues doit répondre à un ordre séquentiel logique. ne serait-ce que pour l'interclassement des fiches elles-mêmes.

Les documents doivent être **structurés**. Lorsque, dans un dossier, des divisions par nature de pièces sont prévues, ces divisions devront apparaître sur le film de manière à faciliter la recherche par l'utilisateur. Par exemple, si le support utilisé est la jaquette, celle-ci doit faire l'objet d'une étude déterminant les couloirs à réserver par types de pièces ; l'usager doit accéder automatiquement au couloir renfermant les pièces qui l'intéressent.

Les dossiers doivent être **expurgés** de tous les documents périmés et sans intérêt réel. Cette purge procure dans la grande majorité des applications un allègement très substantiel des dossiers. Le tri permet, notamment, de supprimer les documents conservés en double ou triple exemplaires, les notes manuscrites sans intérêt... L'épure peut cependant être plus ou moins poussée selon la proportion des documents périmés dans la masse totale des documents à microfilmer.

Les documents doivent être **mis en état** avant d'être microfilmés. Il est fréquent de rencontrer des documents dont l'état physique rend leur

lecture difficile. Ces documents passeront mal l'épreuve de la prise de vues. Si leur nature et leur volume le permettent, il est conseillé soit d'en faire des électrocopies susceptibles, dans certains cas, d'en améliorer la qualité soit, à défaut, de refaire une nouvelle frappe des plus défectueux. Les documents d'origine peuvent, suivant la marge de manœuvre que possède le service, faire l'objet soit :

— d'un enregistrement sur le film — les vues représentant ces documents seront immédiatement suivies des vues des documents électrocopyés ou refrappés ;

— d'une destruction pure et simple — le film ne portant enregistrement que des documents électrocopyés ou refrappés.

Pour les besoins de la recherche, au cours de cette phase préparatoire, devront être mis en place les répertoires et les tables qui permettront aux utilisateurs d'avoir accès dans les meilleures conditions à l'information. La structure des répertoires et tables doit être conçue avant le microfilmage proprement dit. Leur réalisation doit être opérée avant ou après la prise de vues suivant que l'organisation mise en œuvre prévoit ou non leur enregistrement sur le film lui-même.

Répertoires faisant l'objet d'un enregistrement

Ces répertoires constituent des index dont la réalisation est différente suivant la nature du support utilisé : le film ou la fiche.

Les index sur film ne peuvent se concevoir que pour la recherche d'unités d'information individualisées importantes. Connaissant le nombre de vues devant être enregistrées sur le film, la position de début et de fin occupée par les blocs d'information, il est possible de constituer sur un support papier un répertoire préalable à l'enregistrement donnant pour chaque unité d'information sa position sur le film. Ce répertoire sera enregistré en tête du film qu'il concerne. Une telle organisation demande un soin tout particulier au moment de la prise de vue et ne tolère aucune erreur dans les séquences de microfilmage. Elle suppose également que le classement des bobines soit tel que l'utilisateur puisse avoir accès à la bobine qui l'intéresse sans l'intermédiaire d'un répertoire sinon la constitution d'un index enregistré devient une charge supplémentaire sans réel intérêt.

Les index sur fiche sont d'une réalisation plus aisée que ceux réalisés sur films. En fonction de la partition choisie, chaque vue de la fiche est repérée en abscisse et en ordonnée par des coordonnées, numérique et alphabétique. La structure de la fiche étant connue, le nombre de vues enregistrées étant relativement faible, l'établissement de l'index consiste à attribuer à chaque document sa position dans la fiche. L'index ainsi réalisé sera enregistré de préférence sur la dernière vue dans le coin inférieur droit ou à défaut dans le coin supérieur gauche de la fiche. L'utilisateur ne devrait avoir besoin d'aucun support intermédiaire de recherche puisqu'il effectue sa sélection en premier lieu sur le titre de la fiche lisible à l'œil nu puis sur le lecteur en affichant l'index qui lui donnera les coordonnées du document qu'il recherche.

L'avantage de l'enregistrement de l'index sur un support micrographique réside dans la suppression de tout document papier intermédiaire. Toute la recherche s'effectue sur le support lui-même, ce qui nécessite un accès direct à ce support. L'inconvénient d'un tel système est qu'il fait obstacle à toute mise à jour. La mise à jour de l'index suppose la réalisation d'un nouveau support. Avec la technique performante des C.O.M. ce problème peut se résoudre aisément, ce qui n'est pas le cas de la micrographie classique compte tenu des coûts et des temps de réalisation.

Ainsi, dans la majorité des cas, lorsqu'un problème de mise à jour se pose, est-il préférable de constituer tables et répertoires sur des supports papier indépendants des supports films dont ils permettent l'accès.

Répertoires sur support papier non enregistré

Ces répertoires sont constitués, après la prise de vue, au visionnage du film obtenu. Le système limite les erreurs et permet les mises à jour car les références d'un document peuvent être modifiées à la main sur le répertoire sans difficulté. Il présente l'inconvénient d'alourdir le système dans la mesure où les films sont diffusés auprès d'utilisateurs dispersés. En ce cas, des exemplaires des répertoires à jour doivent accompagner les films diffusés.

L'ensemble des opérations qui viennent d'être décrites, qu'il s'agisse du classement, de la structuration, du tri, de la remise en état ou de la constitution des répertoires et index ne peut être confié qu'au personnel administratif compétent et connaissant les documents destinés au microfilmage. Lui seul est en mesure d'accomplir, au moindre risque, le travail de préparation. Il est formellement déconseillé de confier ces tâches à un personnel recruté pour la circonstance et ignorant la nature du travail accompli par le service. Il ne faut pas mésestimer ce travail préparatoire quant à sa durée et quant à son importance pour la sécurité de l'application. Les erreurs commises à ce niveau se retrouvant nécessairement en exploitation, peuvent provoquer une opposition des utilisateurs et condamner à l'échec toute l'opération.

Au plan technique

En complément de la phase de préparation administrative, certaines opérations matérielles (dégrafage des documents, suppression des trombones...) sont indispensables pour permettre la réalisation des prises de vues. Ces dernières incombent au service chargé du microfilmage. Ce service doit respecter les séquences de prises de vues qui lui ont été demandées. Sa responsabilité est entière au plan de la production des microformes.

1.2. Prise en charge du futur

Afin de se dégager des contraintes créées par l'existence de documents conçus antérieurement à l'application micrographique, il est vivement conseillé de revoir leur présentation ou tout au moins d'édicter des consignes pour leur élaboration, afin d'accroître la qualité des vues obtenues sur un support photographique.

Il faut, en effet, se souvenir qu'un document microfilmé est soumis à deux générations au moins de reproduction photographique (film mère + copie) pour rendre la microforme finalement disponible pour l'utilisateur et à trois générations dans le cas d'une restitution sur papier.