BIBLIOGRAPHY ON THE VOLUNTARY STANDARDS SYSTEM AND PRODUCT CERTIFICATION

Carol A. Chapman

Office of Engineering Standards National Engineering Laboratory National Bureau of Standards Washington, D.C. 20234

October 1979



U.S. DEPARTMENT OF COMMERCE, Juanita M. Kreps, Secretary

Luther H. Hodges, Jr., Under Secretary

Jordan J. Baruch, Assistant Secretary for Science and Technology NATIONAL BUREAU OF STANDARDS, Ernest Ambler, Director

Foreword

This bibliography cites documents related to the workings of the voluntary standards system and the economic and legal effects of standards. It is hoped that it will be helpful to economists and others who are studying the voluntary standards system. Many of the documents cited are included in the National Bureau of Standards/Standards Information Service collection of national and international standards and related publications, and are available to the public for on-site use. (For information, call Bill Slattery, 301-921-2587).

The first portion of this bibliography lists references alphabetically by author. The second portion groups references into several categories, by subject. However, researchers using this bibliography should note that many of the publications listed under one heading also contain information pertaining to the other headings. For example, information concerning regulatory use of standards and certifications can be found in most of the publications listed under "Standards System Reform" and in the "International and Foreign" publications that describe national standards systems. Information on certification can also be found in some of the publications listed under "Solar Heating and Cooling Equipment."

The Office of Engineering Standards (OES) of the National Bureau of Standards, publisher of this report, sponsors and conducts research concerning the impact of standards and certification. The purpose of this research is to provide NBS decision-makers with information that will help them better understand the economic, social, and other impacts of the voluntary standards and certification systems. It is hoped that this information will increase the effectiveness of NBS's participation in voluntary standards work and will contribute to the improved development and use of standards. Questions concerning the standards impact analysis activities of OES should be addressed to Joan Koenig, Group Leader, OES Standards Management and Impact Analysis Project.

Carol Chapman July 1979

Abstract

This bibliography lists references accumulated by the NBS Office of Engineering Standards in the course of its research into the workings of the voluntary standards system and the economic and legal effect of standards. The first portion of the bibliography lists references alphabetically by author. The second portion groups references by subject. Subject categories include: standards system reform, regulatory use of standards (buildings, safety, environment), certification and laboratory accreditation, solar heating and cooling, product liability, and international and foreign.

Key words: Bibliography; buildings; certification; economics of standards; legal aspects of standards; product certification; product liability; regulation; standards system; voluntary standards.

Contents

Foreword
Abstract iv
General List (by Author)
Special Lists (by Subject)
Standards System Reform
Regulatory Use of Standards
Buildings
Safety (Except Buildings)
Environment
Certification and Laboratory Accreditation
Solar Heating and Cooling Equipment
Product Liability
International and Foreign

General List (by Author)

- A -

Abourezk, James. "Floor Remarks of Senator James Abourezk, (D-S.Dak.) to Accompany the Voluntary Standards and Accreditation Act of 1977," March 1, 1977.

Resolutions," Congressional Record-Senate, May 1, 1977.

Achenbach, Paul. "Performance Testing of Sanitary Plumbing Fixtures," in <u>Performance of Buildings -- Concept and Measurement</u>, edited by W.W. Walton and B.C. Cadoff. National Bureau of Standards, 1970.

Aerospace Industries Association of America, National Aerospace Standards Committee. <u>Standardization Savings, Identification and Calculation</u>. National Aerospace Standard, 1968, as revised 1970 and 1971.

American Engineering Council. <u>Waste in Industry</u>. New York: McGraw-Hill, 1921. (Reprinted in 1974 by Hive Publ. Co., Easton.)

American National Standards Institute. The American National Standards Institute Policy and Procedures and Manual of Operations for Accreditation of Certification Programs. ANSI, New York, 1976.

New York: ANSI, 1971. Antitrust Implications of Metric Conversion.

Products Liability of Members of Standards Writing Committees. New York: ANSI, 1975. (A brochure.)

. Voluntary (Private Sector) Standards Programs and the GATT Code. New York: ANSI, May 1977. (Report to the U.S. Dept. of Commerce.)

American Society for Testing and Materials. The Economic Significance of Specifications for Materials. ASTM Proceedings, 1931, p. 955+. (Five papers.)

. The Voluntary Standards System of the United States of America. Philadelphia: ASTM, 1975.

Anderson, Frederick R., et al. Environmental Improvement
Through Economic Incentives. Baltimore: John Hopkins Press
(for Resources for the Future), 1977.

Arthur D. Little, Inc. An Examination of the Effect of Modularization of Secondary Containers on Productivity in Grocery Distribution. August, 1974. (Report to the National Assoc. of Food Chains.)

Arthur Young & Co. <u>Testimony Before the Federal Trade</u>

<u>Commission on the Proposed Rule for Standards and</u>

<u>Certification</u>. Sacramento, Ca: Arthur Young & Co., May 1979.

-B-

Beitz, University of Berlin. "Reducing Design and Manufacturing Cost by Using Existing Parts and Assemblies." Paper presented at the International Federation for Application of Standards (IFAN) conference, 1977.

British Government. <u>Purchasing and Industrial Efficiency</u>. (CMND 3291), 1967. ("White Paper")

Brock, Gerald. The U.S. Computer Industry. Cambridge, Mass: Ballinger, 1975. (Pp. 142-155 are concerned with standards.)

Buchbinder, Benjamin; Helzer, Susan Godby; and Offensend, Fred. Preliminary Report on Evaluating Alternatives for Reducing Upholstered Furniture Fire Losses. NBS IR 77-1381, 1977.

Butt, Sheldon. "Standards for the Solar Industry," in U. S. Federal Trade Commission, The Solar Market: Proceedings of the Symposium on Competition in the Solar Energy Industry. Washington, D.C.: GPO, 1978.

Byerly, Radford. <u>Air Pollution Measurement</u>. National Bureau of Standards Office of Air and Water Measurement, April 1975. (Unpublished.)

-C-

Carter, Jimmy. "International Trade Agreements," Federal Register, January 8, 1979.

Chapman, Carol. "Antitrust Consequences of Standards: A Literature Survey." National Bureau of Standards, 1979. (Unpublished.)

. "Economics of Design vs. Performance Standards: A Start," National Bureau of Standards, 1979. (Unpublished).

presented at the Western Economic Assoc. Conference, June 21, 1977, Anaheim, Ca. (Unpublished.)

. "How to Stop Worrying and Love Benefit/Cost Analysis," Standards Engineering, June 1977, pp. 54-6.

Chapman, Robert E.; Chen, Phillip T.; and Hall, William G., Economic Aspects of Fire Safety in Health Care Facilities:

<u>Guidelines for Cost-Effective Retrofitting</u>. National Bureau of Standards (forthcoming).

Chase, Stuart. The Tragedy of Waste. New York: MacMillan, 1925.

Chumas, S.J., ed. <u>Directory of United States Standardization Activities</u>. National Bureau of Standards. NBS Special Publication 417, 1975.

Cornell, Nina; Noll, Roger; and Weingast, Barry. "Safety Regulation," in <u>Setting National Priorities, the Next Ten Years</u>, edited by Henry Owen and Charles Schultze. Washington, D.C.: Brookings, 1976.

-D-

Dardis, Rachel. "Cost Benefit Analysis of Consumer Product Safety Standards," The Journal of Consumer Affairs, Summer, 1977, pp. 34-46.

Diener, Hugo. Standardization and Scientific Management. 1923.

Dixon, Robert G. Standards Development in the Private Sector: Thoughts on Interest Representation and Procedural Fairness. A Report to the National Fire Protection Association. Boston: NFPA, 1978.

Doily. "Economical Results of Standardization." Paper presented at IFAN conference, 1974.

-E-

Eicher, Lawrence, and Koenig, Joan. A Study of NBS Impact on U.S. Standardization Activities. National Bureau of Standards, 1975. (Unpublished.)

-F-

Federal Interagency Task Force on Product Liability. <u>Product Liability: Industry Study</u>. (NTIS Access. No. P.B. 265-542). U.S. Department of Commerce, 1977.

Fenves, Steven; Rankin, Kirk; and Tejuja, Hotchand. The Structure of Building Specifications. National Bureau of Standards, 1976.

Fields, Building Code Burden, 1975.

Finegan, Richard. "The Product Liability Situation in the United States Has Reached Crisis Proportions," <u>Standards</u> Engineering, April 1977, p. 28.

Fitzgibbons, W.O. "Accuracy--An Industrial Viewpoint," in W.H.Kirchhoff, ed., Methods and Standards for Environmental Measurement, National Bureau of Standards, 1976.

Foldesi, Tamas. "Economics Effects of Standardization." Geneva: International Organization for Standardization, 1975.

-G-

Gisevius, W.D. "Reducing Costs by Planned Introduction of Standardization into Industrial Processes." IFAN, 1977.

Glie, Rowen, ed. Speaking of Standards. Boston: Cahners, 1972.

Greifer, B. and Taylor, J.K. <u>Pollutant Analysis Cost Survey</u>, National Bureau of Standards, 1974. (Prepared for EPA.)

-H-

Hande, K. "The Benefits of Standardization in the Electrochemical Industry." Paper presented at IFAN conference, 1974.

Harter, Philip. Regulatory Use of Standards: The Implications for Standards Writers. Prepared for National Bureau of Standards Office of Engineering Standards. (NBS GCR 79-171; forthcoming).

Standards Used in Regulation," <u>ASTM Standardization News</u>, May 1977, pp. 8-11.

Hays, L.; Resnick, L.; and Wakeman, J. "Cost-Benefit Criteria for Gaseous Emission Monitors," in <u>Continuous Monitoring</u>. Air Pollution Control Association, 1975.

Hemenway, David. <u>Industrywide Voluntary Product Standards</u>. Cambridge: Ballinger, 1975.

Germany, and Denmark: An Overview. Prepared for the National Bureau of Standards Office of Engineering Standards. NBS-GCR 79-172, 1979.

Hittman Assoc., Inc. Barriers Connected with Certifying or Listing of Energy Conserving Products Used in Buildings, Nov. 1976. (Prepared for Dept. of Energy.)

Hoffman, S. David and Farr, Janis. "Developing a Proposed CPSC Standard for Television Receivers: The UL Experience," <u>ASTM</u> Standardization News, May 1977, pp. 20-25+.

Hungarian Office for Standardization. Standardization and Economic Life Conference. (Proceedings in English.) OMKDK - TECHNOINFORM H 1428 BUDAPEST, POB.12. HUNGARY, 1973.

Hyer, Charles. <u>Principle Aspects of U.S. Laboratory Accreditation Programs</u>. U.S. Department of Commerce, Washington, D.C., January 1979.

-I-

Imberty, I.M. "Concrete Use of the Method of Assessing Economic Advantages of Standardization for a Company." Paper presented at IFAN conference, 1974.

International Federation for the Application of Standards. "Economy in Standardization." Paper presented at IFAN conference, 1974.

-J-

Japanese Standards Association. <u>Progress of Industrial Standardization in Japan</u>. Tokyo: JSA, 1973.

- K -

Kelly, Mervin, chairman. The Role of the Department of Commerce in Science and Technology. U.S. Dept. of Commerce, 1960.

King, Jon. "Antitrust Laws and Standardization -- What Role the Trade Association?" Federal Trade Commission, 1972. (Unpublished.)

Kirchhoff, W.H., Ed. <u>Methods and Standards for Environmental</u> <u>Measurement</u>. (NBS Symposium). 1976.

Kit, Boris. Economic Impact of International Standardization on United States Industry and Trade, National Bureau of Standards, 1966. (Unpublished.)

-L-

LaQue, Francis, chairman. Report of the Panel on Engineering and Commodity Standards of the Commerce Technical Advisory
Board, U.S. Dept. of Commerce, 1965.

Lawrence, Susannah. "An Overview: The Development of Solar Standards and Its Effect on Consumers," in FTC, The Solar Market, 1978.

Legget, Robert. Standards in Canada. Ottawa: Econ. Council of Canada, 1970.

MacAvoy, Paul, ed. OSHA Safety Regulation: Report of the Presidential Task Force. Washington, D.C.: American Enterprise Institute, 1977.

Mackay, Donald R. "Update: Voluntary Safety Standards for Consumer Products," Professional Safety, Jan. 1979, pp. 32-7.

Manaker, Ralph. "The Legal Defense of Compliance with Standards," ASTM Standardization News, Sept. 1977, pp. 8-10+.

Marshall, Harold; Ruegg, Rosalie; and Wyly, Robert. "Cost Savings from Reduced-Sized Venting," <u>Plumbing Engineer</u>, July/August, 1977.

Maullin, Richard. "Remarks," in FTC, The Solar Market, 1978.

McConnaughey, John. "Economic Impact of Building Codes," in Research and Innovation in the Building Regulatory Process, Edited by Patrick Cooke, National Bureau of Standards, 1977.

Melnitsky, Benjamin. <u>Profiting from Industrial</u> Standardization. New York: Conover-Mast Public., 1953.

Minogue, Robert, Dir., NRC Office of Standards Development. "Standards Development from a Regulator's Viewpoint," 25th Annual Conf. of the Standards Engineers Society, Atlantic City, NJ, Sept., 1976.

Muehlhause, Carl, chairman, et al. Considerations in the Use of Sampling Plans for Effecting Compliance with Mandatory Safety Standards. National Bureau of Standards, 1975.

-N -

Nagarajan, R. <u>Standards in Building</u>. New York: John Wiley & Sons, 1976.

National Business Council for Consumer Affairs. Safety in the Marketplace: A Program for the Improvement of Product Safety. GPO, Washington, D.C., 1973, p. 50.

National Commission on Product Safety. Final Report. Washington, D.C.: GPO, 1973.

Volume II. Washington, D.C.: GPO, 1971.

National Fire Protection Association. Bibliography of Voluntary Standardization. 1977.

Neissing, W.J. <u>Laboratories Technically Qualified to Test</u>
Solar Collectors in Accordance with ASHRAE Standard 93-77: A
Summary Report. (NBSIR 78-1535) 1978

Newton, Alwin B. "Certifying Solar Equipment," <u>Solar Age</u>, Dec. 1978.

-0-

O'Bannon, Robert. <u>Building Department Administration</u>. Int'l Conference of Building Officials, Whittier, Ca., 1973.

Oster, Sharon, and Quigley, John. "Regulatory Barriers to the Diffusion of Innovation: Some Evidence from Building Codes," in Research and Innovation in the Building Regulatory Process, Edited by Patrick Cooke. National Bureau of Standards, 1977.

-P-

Parkinson, Thomas. "The Role of Seals and Certifications of Approval in Consumer Decision-Making," J. of Consumer Affairs, Summer 1975.

Petersen, Stephen. <u>Retrofitting Existing Housing for Energy Conservation: An Economic Analysis</u>. National Bureau of Standards, 1974.

The Role of Economic Analysis in the Development of Energy Standards for Buildings. National Bureau of Standards, 1977.

Peyton, Donald. The Role of Standards in Product Liability Prevention. New York: ANSI, 1974. (A brochure.)

Phucas, Charles and Grossnickle, Linda, eds. <u>Directory of Committee Memberships of the National Bureau of Standards Staff on Engineering Standards Committees</u>. National Bureau of Standards, 1975.

Poulson, Barry, ed. <u>Economic Analysis of the National</u>
<u>Measurement System.</u>
(NBS IR 75-948)

<u>Economic Analysis of the National</u>
National Bureau of Standards, Sept. 1977.

-R-

Reck, Dickson, ed. <u>National Standards in a Modern Economy</u>. New York: Harper and Row, 1956.

Reihlen. "Costs of Standardization, Advantages of Standardization." Paper presented at IFAN conference, 1977.

Rockwell, William. "Standards, Certification, Quality Assurance and the Products Liability Problem." Oct. 1976. (Paper prepared for the Interagency Task Force on Product Liability, Dept. of Commerce.)

- Sanderson, Richard. <u>Codes and Code Administration: An</u>
 <u>Introduction to Building Regulations in the United States.</u>
 Chicago: Building Officials Conference of America, Inc., 1969.
- Schoen, R.; Hirshberg, A.S.; and Weingart, J.S. New Energy
 Technologies for Buildings. (Report to the Ford Foundation.)
 Cambridge, Ma: Ballinger Publishing, 1975.
 - Sellye, E. Specifications and Costs. John Wyly, 1957.
 - Slattery, William. <u>Tabulation of Voluntary Standards and</u>
 <u>Certification Programs for Consumer Products</u>. National Bureau of Standards. NBS Tech Note 948, 1977.
 - Smith, Baird. "Information Structure of Building Codes and Standards for the Needs of Existing Buildings," in Research and Innovation in the Building Regulatory Process, ed. by Patrick Cooke, National Bureau of Standards, June 1977.
 - Suzuki, George, chairman. Report of the Voluntary
 Standardization Policy Study Group. National Bureau of
 Standards, 1970.

-T -

- Till, Derek; Gleicher, David; and Michaelis, Michael. <u>The Role of the Voluntary Standards System in Relation to Mandatory Standards</u>. 1973. (Report by Arthur D. Little, Inc. to ASTM.)
- Timberlake, E. Compton. "Standardization and Simplification Under the Antitrust Laws," <u>Cornell Law Quarterly</u>, March 1944, 29(3), pp. 301-329.
- Toth, Robert. "The Economics of Standardization -- Credits vs. Debits." Martin Marietta Corp., Orlando, Fla., April 1972.

-U-

- U.S. Congress. PL 89-306. ("The Brooks Act"), Oct. 30, 1965.
- PL 91-596 as amended by PL 93-237. Occupational Safety and Health Act of 1970.
- PL 92-573, as amended in Nov., 1978, by PL 95-631. The Consumer Product Safety Act.
- PL 93-409. Solar Heating and Cooling Demonstration Act of 1974.
- Dec. 22, 1975. Energy Policy and Conservation Act,
- PL 94-295. Medical Devices Amend's Act of 1975.

- S.825 and H.R. 8184. <u>Voluntary Standards and Accreditation Act of 1977</u>. (Proposed law.)
- . House Comm. on Gov't Oper. Administration of Public Law 89-306, Procurement of ADP Resources by the Federal Government. 94th Cong., 2d Sess., 1976.
- . House Comm. on Small Business. The Effect Upon Small Business of Voluntary Industrial Standards, A Report. 90th Cong., 2d Sess., 1968.
- Energy Conservation. 95th Cong., 1st Sess., March 1977.
- Atmosphere. Review of Research Related to Sulfates in the Atmosphere. April 1976.
- . House Subcomm. on Special Studies,
 Investigations and Oversight and Subcomm. on the Environment
 and the Atmosphere. The Environmental Protection Agency's
 Research Program with Primary Emphasis on the Community Health
 and Environmental Surveillance System (CHESS): An Investigative
 Report. 94th Congr., 2d Sess., Nov. 1976.
- . Senate Subcomm. on Antitrust and Monopoly.

 Hearings on S.3555: Voluntary Standards and Certification Act
 of 1976 (Part 1). 94th Cong., 2d Sess., June and July, 1976.
- Cong., 1st Sess., March 1975.
- . Voluntary Industrial Standards--1976: Hearings. 94th Cong., 2d Sess., March 1976 and August 1976.
- Voluntary Standards and Accreditation Act of 1977, S.825: Hearings. 95th Cong., 1st Sess., 1977.
- U.S. Consumer Product Safety Commission. "Commission Involvement in Voluntary Standards Activities: General Statement of Policy," Federal Register, 43 (87), May 4, 1978, pp. 19216-24.
- U. S. Department of Commerce. "Draft Uniform Product Liability Law," Federal Register, v. 44, no. 9, Jan. 12, 1979, pp. 2996-3019.
- . First Annual Report: National Voluntary
 Laboratory Accreditation Program. DoC, Washington, D.C., 1977.
- . "Guide to Standards Activities of Federal Agencies." NTIS Report No. OPS-75/1, 1976.

- . "Procedures for a National Voluntary Laboratory Accreditation Program," <u>Federal Register</u>, Feb. 25, 1976, <u>41</u> (38) pp. 8163-68.
- . Office of Product Standards. Summary of Proceedings: Second International Conference on Recognition of National Programs for Accredidation of Testing Laboratories. DoC, Washington, D.C., 1978.
- U.S. Federal Trade Commission. <u>In the Matter of the Society of the Plastics Industry, Inc., et al.</u> Docket No. C-2596. <u>Complaint and Decision and Order, Nov. 4, 1974.</u>
- Preliminary Staff Study (Precis):

 Self-Regulation--Product Standardization, Certification and
 Seals of Approval. 1972.
- . The Solar Market: Proceedings of the Symposium on Competition in the Solar Energy Industry. U.S. GPO, Washington, 1978
- Standards and Certification: Proposed Rule and Staff Report. GPO, Washington, D.C., December 1978. (See also comments filed with FTC by UL, ASTM, NFPA, AHAM and others on the Proposed Trade Regulation Rule for Standards and Certification.)
- Regulation Rule, Federal Register, December 7, 1978, pp. 57269-84 (43 FR 57269).
- U.S. Library of Congress, Congressional Research Service.

 Voluntary Industrial Standards in the United States, An

 Overview of Their Evolution and Significance for the Congress.

 93d Cong., 2d Sess., 1974. (A Report to the House Subcom. on Science, Research, and Development.)
- U.S. National Bureau of Standards. An Index of U.S. Voluntary Engineering Standards. NBS Special Publication 329, 1971. (Also see Supplement 1, 1972, and Supplement 2, 1974.)
- . Institute for Computer Sciences and Technology.

 A Ten Year History of National Bureau of Standards Activities
 Under the Brooks Act (Public Law 89-306). Feb. 1977.
- U.S. Occupational Safety and Health Administration. "Criteria and Procedures for Accrediting Testing Laboratories," <u>Federal Register</u>, Sept. 11, 1973, 38, p. 25150.
- U.S. Office of Management and Budget. "Proposed OMB Circular on Federal Interaction with Voluntary Consensus Standards-Developing Bodies," <u>Federal Register</u>, Dec. 22, 1977, 43 (1), pp. 48-51.

Verman, Lal. <u>Standardization: A New Discipline</u>. Hamden, Ct: The Shoe String Press, 1973.

Vitro Laboratories. Appliance Certification Program: Task 1
Report. Prepared for U.S. Dept. of Energy, February, 1979.

Vogel, Bertram. Standards Referenced in Selected Building Codes. National Bureau of Standards. NBS IR 76-1140, 1976.

-W-

Waksman, D., J.H. Pielert, R.D. Dikkers, E.R. Streed, W.J. Niessing. Plan for the Development and Implementation of Standards for Solar Heating and Cooling Applications. (NBSIR 78-1143A) 1978.

Warner, Sir Frederick. Standards and Specifications in the Engineering Industries. National Economic Development Office, Millbank Tower, Millbank, London SWIP 4QX. (1977).

Wilson, Carroll. <u>Standards in Commerce--A Basis for Action</u>. U.S. Dept. of Commerce, 1943.

Wilson, Charles, Chairman. Report of the Policy Committee on Standards. U.S. Dept. of Commerce, 1945.

Wittenbrock, N.G. An Experiment on Accelerating the Writing of Nuclear Standards Conducted for the American National Standards Institute. National Bureau of Standards, 1975. (Report to NBS by Battelle Pacific Northwest Laboratories.)

Woodward, C. Douglas. <u>BSI: The Story of Standards</u>. London: The British Standards Institution, 1972.

Wright, James. "Performance Criteria in Building," <u>Scientific</u> <u>American</u>, March 1971, <u>224</u> (3), pp. 16-25.

Special Lists (by Subject)

Standards System Reform

- Abourezk, James. "Floor Remarks of Senator James Abourezk, (D-S.Dak.) to Accompany the Voluntary Standards and Accreditation Act of 1977," March 1, 1977.
- . "Statements on Introduced Bills and Joint Resolutions," Congressional Record-Senate, May 1, 1977.
- American Society for Testing and Materials. The Voluntary Standards System of the United States of America. Philadelphia: ASTM, 1975.
- Dixon, Robert G. Standards Development in the Private Sector: Thoughts on Interest Representation and Procedural Fairness. A Report to the National Fire Protection Association. Boston: NFPA, 1978.
- Hittman Assoc. Barriers Connected with Certifying or Listing of Energy Conserving Products Used in Buildings, 1976. (DoE)
- LaQue, Francis, chairman. Report of the Panel on Engineering and Commodity Standards of the Commerce Technical Advisory Board, U.S. Dept. of Commerce, 1965.
- U.S. Congress. S.825 and H.R. 8184. Voluntary Standards and Accreditation Act of 1977. (Proposed law.)
- House Comm. on Small Business. The Effect Upon Small Business of Voluntary Industrial Standards, A Report. 90th Cong., 2d Sess., 1968.
- Energy Conservation. 95th Cong., 1st Sess., March 1977.
- . Senate Subcomm. on Antitrust and Monopoly. Hearings on S.3555: Voluntary Standards and Certification Act of 1976 (Part 1). 94th Cong., 2d Sess., June and July, 1976.
- Cong., 1st Sess., March 1975.
- . Voluntary Industrial Standards--1976: Hearings. 94th Cong., 2d Sess., March 1976 and August 1976.
- . Voluntary Standards and Accreditation Act of 1977, S.825: Hearings. 95th Cong., 1st Sess., 1977.
- U.S. Federal Trade Commission. In the Matter of the Society of the Plastics Industry, Inc., et al. Docket No. C-2596.

 Complaint and Decision and Order, Nov. 4, 1974.

- Preliminary Staff Study (Precis):
 Self-Regulation--Product Standardization, Certification and
 Seals of Approval. 1972.
- Standards and Certification: Proposed Rule and Staff Report. GPO, Washington, D.C., December 1978. (See also comments filed with FTC by UL, ASTM, NFPA, AHAM and others on the Proposed Trade Regulation Rule for Standards and Certification.)
- Regulation Rule, "Federal Register, December 7, 1978, pp. 57269-84 (43 FR 57269).
- U.S. Library of Congress, Congressional Research Service.

 Voluntary Industrial Standards in the United States, An

 Overview of Their Evolution and Significance for the Congress.

 93d Cong., 2d Sess., 1974. (A Report to the House Subcom. on Science, Research, and Development.)
- U.S. Office of Management and Budget. "Proposed OMB Circular on Federal Interaction with Voluntary Consensus Standards-Developing Bodies," <u>Federal Register</u>, Dec. 22, 1977, 43 (1), pp. 48-51.

Regulatory Use of Standards

General

Duncan, Acheson. "In the Federal Arena: E-11 and Regulatory Agencies," ASTM Standardization News, Jan. 1979, pp. 20+.

Hamilton, Robert. "The Role of Nongovernmental Standards in the Development of Mandatory Federal Standards Affecting Safety or Health," Texas Law Review, 56(8), Nov. 1978.

Harter, Philip. "Procedures for the Regulatory Use of Consensus Standards," Fire Journal, Nov. 1977, pp. 63-64+.

Regulatory Use of Standards: The Implications for Standards Writers. Prepared for National Bureau of Standards Office of Engineering Standards. (NBS GCR 79-171; forthcoming).

Till, Derek; Gleicher, David; and Michaelis, Michael. <u>The Role of the Voluntary Standards System in Relation to Mandatory Standards</u>. 1973. (Report by Arthur D. Little, Inc. to ASTM.)

Buildings

Achenbach, Paul. "Performance Testing of Sanitary Plumbing Fixtures," in <u>Performance of Buildings -- Concept and Measurement</u>, edited by W.W. Walton and B.C. Cadoff. National Bureau of Standards, 1970.

Arthur Young & Co. <u>Testimony Before the Federal Trade</u>

<u>Commission on the Proposed Rule for Standards and</u>

<u>Certification</u>. Sacramento, Ca: Arthur Young & Co., May 1979.

Chapman, Robert E.; Chen, Phillip T.; and Hall, William G., <u>Economic Aspects of Fire Safety in Health Care Facilities:</u>
<u>Guidelines for Cost-Effective Retrofitting</u>. National Bureau of Standards (forthcoming).

Fenves, Steven; Rankin, Kirk; and Tejuja, Hotchand. The Structure of Building Specifications. National Bureau of Standards, 1976.

Fields, Building Code Burden, 1975.

Hittman Assoc., Inc. <u>Barriers Connected with Certifying or Listing of Energy Conserving Products Used in Buildings</u>, Nov. 1976. (Prepared for Dept. of Energy.)

Marshall, Harold; Ruegg, Rosalie; and Wyly, Robert. "Cost Savings from Reduced-Sized Venting," <u>Plumbing Engineer</u>, July/August, 1977.

McConnaughey, John. "Economic Impact of Building Codes," in Research and Innovation in the Building Regulatory Process, Edited by Patrick Cooke, National Bureau of Standards, 1977.

Nagarajan, R. Standards in Building. New York: John Wiley & Sons, 1976.

O'Bannon, Robert. <u>Building Department Administration</u>. Int'l Conference of Building Officials, Whittier, Ca., 1973.

Oster, Sharon, and Quigley, John. "Regulatory Barriers to the Diffusion of Innovation: Some Evidence from Building Codes," in Research and Innovation in the Building Regulatory Process, Edited by Patrick Cooke. National Bureau of Standards, 1977.

Petersen, Stephen. Retrofitting Existing Housing for Energy Conservation: An Economic Analysis. National Bureau of Standards, 1974.

. The Role of Economic Analysis in the Development of Energy Standards for Buildings. National Bureau of Standards, 1977.

Sanderson, Richard. <u>Codes and Code Administration: An</u>
<u>Introduction to Building Regulations in the United States</u>.
Chicago: Building Officials Conference of America, Inc., 1969.

Schoen, R.; Hirshberg, A.S.; and Weingart, J.S. <u>New Energy</u>
<u>Technologies for Buildings</u>. (Report to the Ford Foundation.)
Cambridge, Ma: Ballinger Publishing, 1975.

Smith, Baird. "Information Structure of Building Codes and Standards for the Needs of Existing Buildings," in Research and Innovation in the Building Regulatory Process, ed. by Patrick Cooke, National Bureau of Standards, June 1977.

PL 94-163. Energy Policy and Conservation Act, Dec. 22, 1975.

Vogel, Bertram. Standards Referenced in Selected Building Codes. National Bureau of Standards. NBS IR 76-1140, 1976.

Wright, James. "Performance Criteria in Building," <u>Scientific American</u>, March 1971, <u>224</u> (3), pp. 16-25.

Safety (Except Building-Related)

Buchbinder, Benjamin; Helzer, Susan Godby; and Offensend, Fred. Preliminary Report on Evaluating Alternatives for Reducing Upholstered Furniture Fire Losses. NBS IR 77-1381, 1977.

Cornell, Nina; Noll, Roger; and Weingast, Barry. "Safety Regulation," in <u>Setting National Priorities, the Next Ten Years</u>, edited by Henry Owen and Charles Schultze. Washington, D.C.: Brookings, 1976.

Dardis, Rachel. "Cost Benefit Analysis of Consumer Product Safety Standards," The Journal of Consumer Affairs, Summer, 1977, pp. 34-46.

Harter, Philip. "A View from the OSHA Task Force: Voluntary Standards Used in Regulation," <u>ASTM Standardization News</u>, May 1977, pp. 8-11.

Hoffman, S. David and Farr, Janis. "Developing a Proposed CPSC Standard for Television Receivers: The UL Experience," <u>ASTM</u> Standardization News, May 1977, pp. 20-25+.

MacAvoy, Paul, ed. OSHA Safety Regulation: Report of the Presidential Task Force. Washington, D.C.: American Enterprise Institute, 1977.

Mackay, Donald R. "Update: Voluntary Safety Standards for Consumer Products," Professional Safety, Jan. 1979, pp. 32-7.

Minogue, Robert, Dir., NRC Office of Standards Development. "Standards Development from a Regulator's Viewpoint," 25th Annual Conf. of the Standards Engineers Society, Atlantic City, NJ, Sept., 1976.

Muchlhause, Carl, chairman, et al. Considerations in the Use of Sampling Plans for Effecting Compliance with Mandatory Safety Standards. National Bureau of Standards, 1975.

National Business Council for Consumer Affairs. Safety in the Marketplace: A Program for the Improvement of Product Safety. GPO, Washington, D.C., 1973, p. 50.

National Commission on Product Safety. Final Report. Washington, D.C.: GPO, 1973.

Volume II. Washington, D.C.: GPO, 1971.

U.S. Congress. PL 91-596 as amended by PL 93-237. Occupational Safety and Health Act of 1970.

- PL 92-573, as amended in Nov., 1978, by PL 95-631. The Consumer Product Safety Act.
- PL 94-295. Medical Devices Amendments Act of
- U.S. Consumer Product Safety Commission. "Commission Involvement in Voluntary Standards Activities: General Statement of Policy," <u>Federal Register</u>, 43 (87), May 4, 1978, pp. 19216-24.

Wittenbrock, N.G. An Experiment on Accelerating the Writing of Nuclear Standards Conducted for the American National Standards Institute. National Bureau of Standards, 1975. (Report to NBS by Battelle Pacific Northwest Laboratories.)

Environment

Anderson, Frederick R., et al. Environmental Improvement Through Economic Incentives. Baltimore: John Hopkins Press (for Resources for the Future), 1977.

Byerly, Radford. <u>Air Pollution Measurement</u>. National Bureau of Standards Office of Air and Water Measurement, April 1975. (Unpublished.)

Chapman, Carol. "Economics of Environmental Measurements," Presented at the Western Econ. Assoc. Conf., June 1977, Anaheim.

Fitzgibbons, W.O. "Accuracy--An Industrial Viewpoint," in W.H.Kirchhoff, ed., Methods and Standards for Environmental Measurement, National Bureau of Standards, 1976.

Greifer, B. and Taylor, J.K. <u>Pollutant Analysis Cost Survey</u>, National Bureau of Standards, 1974. (Prepared for EPA Office of Research and Development.)

Hays, L.; Resnick, L.; and Wakeman, J. "Cost-Benefit Criteria for Gaseous Emission Monitors," in <u>Continuous Monitoring</u>. Air Pollution Control Association, 1975.

Kirchhoff, W.H., Ed. <u>Methods and Standards for Environmental</u> <u>Measurement</u>. (NBS Symposium). 1976.

U.S.Congress. House Subcomm. on Environment and the Atmosphere. Review of Research Related to Sulfates in the Atmosphere. April 1976.

. House Subcomm. on Special Studies,
Investigations and Oversight and Subcomm. on the Environment
and the Atmosphere. The Environmental Protection Agency's
Research Program with Primary Emphasis on the Community Health
and Environmental Surveillance System (CHESS): An Investigative
Report. 94th Congr., 2d Sess., Nov. 1976.

Certification and Laboratory Accreditation

American National Standards Institute. The American National Standards Institute Policy and Procedures and Manual of Operations for Accreditation of Certification Programs. ANSI, New York, 1976.

Hittman Assoc., Inc. <u>Barriers Connected with Certifying or Listing of Energy Conserving Products Used in Buildings</u>, Nov. 1976. (Prepared for Dept. of Energy.)

Hyer, Charles. <u>Principle Aspects of U.S. Laboratory Accreditation Programs</u>. U.S. Department of Commerce, Washington, D.C., January 1979.

Newton, Alwin B. "Certifying Solar Equipment," Solar Age, Dec. 1978.

Parkinson, Thomas. "The Role of Seals and Certifications of Approval in Consumer Decision-Making," J. of Consumer Affairs, Summer 1975.

Peyton, Donald. The Role of Standards in Product Liability Prevention. New York: ANSI, 1974. (A brochure.)

Slattery, William. <u>Tabulation of Voluntary Standards and</u>
<u>Certification Programs for Consumer Products</u>. National Bureau of Standards. NBS Tech Note 948, 1977.

- U. S. Department of Commerce. <u>First Annual Report: National Voluntary Laboratory Accreditation Program.</u> DoC, Washington, D.C., 1977.
- Accreditation Program, Federal Register, Feb. 25, 1976, 41 (38) pp. 8163-68.
- Proceedings: Second International Conference on Recognition of National Programs for Accredidation of Testing Laboratories.

 DoC, Washington, D.C., 1978.
- U.S. Federal Trade Commission. Standards and Certification:

 Proposed Rule and Staff Report. GPO, Washington, D.C.,

 December 1978. (See also comments filed with FTC by UL, ASTM, NFPA, AHAM and others on the Proposed Trade Regulation Rule for Standards and Certification.)

Vitro Laboratories. Appliance Certification Program: Task 1
Report. Prepared for U.S. Dept. of Energy, February, 1979.

Solar Heating and Cooling Equipment

Butt, Sheldon. "Standards for the Solar Industry," in U. S. Federal Trade Commission, The Solar Market: Proceedings of the Symposium on Competition in the Solar Energy Industry. Washington, D.C.: GPO, 1978.

Lawrence, Susannah. "An Overview: The Development of Solar Standards and Its Effect on Consumers," in FTC, The Solar Market, 1978.

Maullin, Richard. "Remarks," in FTC, The Solar Market, 1978.

Neissing, W.J. <u>Laboratories Technically Qualified to Test</u>
Solar Collectors in Accordance with ASHRAE Standard 93-77: A

<u>Summary Report</u>. (NBSIR 78-1535) 1978

Newton, Alwin B. "Certifying Solar Equipment," Solar Age, Dec. 1978.

U.S. Federal Trade Commission. The Solar Market: Proceedings of the Symposium on Competition in the Solar Energy Industry. U.S. GPO, Washington, 1978

Waksman, D., J.H. Pielert, R.D. Dikkers, E.R. Streed, W.J. Niessing. Plan for the Development and Implementation of Standards for Solar Heating and Cooling Applications. (NBSIR 78-1143A) 1978.

Product Liability

American National Standards Institute. <u>Products Liability of Members of Standards Writing Committees</u>. New York: ANSI, 1975. (A brochure.)

Federal Interagency Task Force on Product Liability. <u>Product Liability: Industry Study</u>. (NTIS Access. No. P.B. 265-542).

U.S. Department of Commerce, 1977.

Finegan, Richard. "The Product Liability Situation in the United States Has Reached Crisis Proportions," <u>Standards</u> Engineering, April 1977, p. 28.

Manaker, Ralph. "The Legal Defense of Compliance with Standards," <u>ASTM Standardization News</u>, Sept. 1977, pp. 8-10+.

Peyton, Donald. The Role of Standards in Product Liability Prevention. New York: ANSI, 1974. (A brochure.)

Rockwell, William. "Standards, Certification, Quality Assurance and the Products Liability Problem." Oct. 1976. (Paper prepared for the Interagency Task Force on Product Liability, Dept. of Commerce.)

U. S. Department of Commerce. "Draft Uniform Product Liability Law," Federal Register, v. 44, no. 9, Jan. 12, 1979, pp. 2996-3019.

International and Foreign

American National Standards Institute. <u>Voluntary (Private Sector) Standards Programs and the GATT Code</u>. New York: ANSI, May 1977. (Report to the U.S. Dept. of Commerce.)

Beitz, University of Berlin. "Reducing Design and Manufacturing Cost by Using Existing Parts and Assemblies." Paper presented at the International Federation for Application of Standards (IFAN) conference, 1977.

British Government. <u>Purchasing and Industrial Efficiency</u>. (CMND 3291), 1967. ("White Paper")

Carter, Jimmy. "International Trade Agreements," Federal Register, January 8, 1979.

Foldesi, Tamas. "Economics Effects of Standardization." Geneva: International Organization for Standardization, 1975.

Gisevius, W.D. "Reducing Costs by Planned Introduction of Standardization into Industrial Processes." Paper presented at IFAN conference, 1977.

Hande, K. "The Benefits of Standardization in the Electrochemical Industry." Paper presented at IFAN conference, 1974.

Hemenway, David. Standards Systems in Canada, the U.K., West Germany, and Denmark: An Overview. Prepared for the National Bureau of Standards Office of Engineering Standards. NBS-GCR 79-172, 1979.

Hungarian Office for Standardization. Standardization and Economic Life Conference. (Proceedings in English.) OMKDK - TECHNOINFORM H 1428 BUDAPEST, POB.12. HUNGARY, 1973.

Imberty, I.M. "Concrete Use of the Method of Assessing Economic Advantages of Standardization for a Company." Paper presented at IFAN conference, 1974.

International Federation for the Application of Standards. "Economy in Standardization." Paper presented at IFAN conference, 1974.

Japanese Standards Association. <u>Progress of Industrial</u> Standardization in Japan. Tokyo: JSA, 1973.

Kit, Boris. <u>Economic Impact of International Standardization on United States Industry and Trade</u>, National Bureau of Standards, 1966. (Unpublished.)

- Legget, Robert. Standards in Canada. Ottowa: Econ. Council of Canada, 1970.
- Reihlen. "Costs of Standardization, Advantages of Standardization." Paper presented at IFAN conference, 1977.
- U. S. Department of Commerce. <u>Summary of Proceedings: Second International Conference on Recognition of National Programs for Accredidation of Testing Laboratories</u>. DoC, Washington, D.C., 1978.
- Warner, Sir Frederick. <u>Standards and Specifications in the Engineering Industries</u>. National Economic Development Office, Millbank Tower, Millbank, London SWIP 4QX. (1977).
- Woodward, C. Douglas. <u>BSI: The Story of Standards</u>. London: The British Standards Institution, 1972.

NBS-114A (REV. 9-78)	1. PUBLICATION OR REPORT NO.	2.Gov't. Accession	Vo. 3. Recipient's Ac	cession No.	
BIBLIOGRAPHIC DATA SHEET	NBSIR 79-1900				
4. TITLE AND SUBTITLE			5. Publication Da		
Bibliography on the Voluntary Standards System and Product Certification			October	October 1979	
			6. Performing Organization Code		
7. AUTHOR(S) Carol Chapman			8. Performing Org	an. Report No.	
9. PERFORMING ORGANIZATION NAME AND ADDRESS			10. Project/Task/	10. Project/Task/Work Unit No.	
NATIONAL BUREAU OF : DEPARTMENT OF COMM WASHINGTON, DC 20234	11. Contract/Gran	11. Contract/Grant No.			
12. SPONSORING ORGANIZATION NAME AND COMPLETE ADDRESS (Street, City, State, ZIP) Same as "9"			13. Type of Repor	13. Type of Report & Period Covered Final	
			14. Sponsoring Agency Code		
15. SUPPLEMENTARY NOTES					
Standards in the co system and the econ bibliography lists references by subje	ists references accumulate urse of its research into comic and legal effects of references alphabetically ect. Subject categories itandards (buildings, safe ation, solar heating and oreign.	standards. The by author. The nclude: standard ty, environment)	first portion second portion system reform, certification	n of the on groups rm, on and	
separated by semicolons)	ntries; alphabetical order; capitalize only lings; certification; econ certification; product li	omics of standar	ds: legal asp	ects of	
voluntary standards	\ ;	19. SECU	RITY CLASS	21. NO. OF PRINTED PAGES	
18. AVAILABILITY	₩ Unlimited	(THIS	REPORT)	PRINTED FAGES	
For Official Distribution	. Do Not Release to NTIS	į.	ASSIFIED	27	
		gton, DC 20. SECU	RITY CLASS PAGE)	22. Price	

Order From Sup. of Doc., U.S. Government Printing Office, Washington, DC 20402, SD Stock No. SN003-003-

Order From National Technical Information Service (NTIS), Springfield, VA. 22161

UNCLASSIFIED

\$4.00