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**Proceedings of the
Second Meeting of the
Intergovernmental U.S.-
Russian Business
Development Committee's
Standards Working Group,
March 23-24, 1993**

Stanley I. Warshaw

U.S. DEPARTMENT OF COMMERCE
Technology Administration
National Institute of Standards
and Technology
Gaithersburg, MD 20899

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April 1993



U.S. DEPARTMENT OF COMMERCE
Ronald H. Brown, Secretary

**NATIONAL INSTITUTE OF STANDARDS
AND TECHNOLOGY**
Raymond G. Kammer, Acting Director

DEDICATION

The daughter of one of the members of the Intergovernmental U.S. - Russian Business Development Committee's Standards Working Group, Dr. Stanislav Podlepa of GOSSTANDART, presented her father with the following note on the occasion of his first visit to the United States. Alexandra Podlepa, 16 years old, studies English in school, and wanted to capture the significance of his visit in this poem. It was read from the podium during the meeting, and the attendees unanimously endorsed her enthusiastic creativity as exemplifying the Committee's continuing spirit of cooperation:

What do the standards do for you?
They help to sell the stuff you made
To lots of countries, not to few,
And find a lot of foreign friends.

Alexandra Podlepa

III/20/93.

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Executive Summary

The 1992 U.S. - Russia Summit in Washington DC marked the beginning of a new commercial relationship between the United States and Russia. Additionally, the U.S. Secretary of Commerce and the Russian Minister of Foreign Economic Relations established an "Intergovernmental U.S. - Russia Business Development Committee" to solve problems, promote trade development activities and serve as the forum to assist in such trade related matters as standardization and conformity assessment matters. The Standards Working Group of this Committee held its first meeting in St. Petersburg, Russia, September 8 - 9, 1992. The recommendations resulting from that first meeting are appended to this report.

This second meeting of the Standards Working Group resulted in an exchange of information regarding the standards and conformity assessment practices of each country and an understanding of new standards related legislative initiatives within Russia.

Of particular significance was the signing of a formal Memorandum of Understanding for cooperation on standards, certification, testing, and metrology matters between the United States (NIST) and Russia (GOSSTANDART). (See next page)

It was also the first public announcement of a new United States Department of Commerce initiative to provide financial support to Russians desiring to learn more about U.S. standardization practices within industrial and commercial enterprises. (See Appendix)

**MEMORANDUM OF UNDERSTANDING ON
SCIENTIFIC AND TECHNICAL COOPERATION
IN THE FIELDS OF STANDARDS AND METROLOGY
BETWEEN
THE U.S. NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
AND
THE STATE COMMITTEE OF THE RUSSIAN FEDERATION
FOR STANDARDIZATION, METROLOGY, AND CERTIFICATION**

The U.S. National Institute of Standards and Technology and the State Committee of the Russian Federation for Standardization, Metrology, and Certification, (hereinafter referred to as "the Parties"):

Recognizing the growing importance of international standards in the global marketplace;

Desiring to facilitate the expansion of cooperation between the Parties in standards development and chemical, physical, and engineering metrology; and

Taking into account their mutual interest and the scientific, technical, and trade benefits in developing such cooperation;

Have agreed as follows:

Article 1

Scientific and technical cooperation between the Parties should be realized in the following fields:

1. Enhancing the use of international standards in international trade;
2. The harmonization of the Parties' national standards and conformity assessment practices and the further harmonization of those standards and practices with international standards, practices, and guidelines;
3. Mutual development of new methods and reference standards and materials for different types of measurements;

4. Harmonization of standards for legal metrology;
5. Research in precise measurements of physical quantities and comparison of standards of basic physical units;
6. Fundamental research in chemical, physical, and engineering metrology; and
7. Other activities related to standards and/or metrology as may be mutually agreed.

Article 2

Scientific and technical cooperation between the Parties in subjects specified in Article 1 may take the following forms:

1. Exchange of scientific and technical information and documents;
2. Reciprocal visits of experts and research scientists;
3. Mutual consultations concerning the analysis of policy, and scientific and technical problems; and
4. Collaborative research, developments and tests, exchange of results and experience obtained.

All activities are subject to the applicable laws and regulations of the Parties and to the availability of funds. Scientific exchanges will be carried out under the principle of mutual benefit and reciprocity.

Article 3

1. Nominations of scientists or experts for exchange visits will be submitted to the receiving Party no later than three months before the proposed date for starting the visit. For each person nominated, the sending Party will provide the following information: the full name of the expert, date and place of birth, education and academic degrees, place of work, scientific specialty, a list of main scientific works and publications, the proposed program of scientific work with a suggested list of the scientific establishments or laboratories to be visited and the scientists to be met, knowledge of foreign languages, topics of lectures that could be delivered by the expert, proposed date of arrival, and the length of stay.
2. The receiving Party will respond to this nomination no later than two months after its receipt. If the nomination is acceptable, the receiving Party will inform the sending

Party of a possible date of arrival of the expert in the country and will give its agreement to the program or will propose alternatives to the program.

3. After receiving the consent of the receiving Party to accept a given expert, the sending Party shall inform the receiving Party, two weeks or more in advance, of the exact date of the arrival of the expert in the country.

4. The Parties will facilitate the timely receipt of visas by the experts travelling in accordance with this Memorandum.

Article 4

1. Each Party will provide experts of the other Party the opportunity to conduct scientific research work in laboratories and libraries without cost.

2. The receiving Party will bear expenses for procuring such materials, apparatus, literature, photocopies and microfilm as are essential for the completion of the agreed plan of work by experts of the sending Party.

3. As both Parties acknowledge the importance and desirability of periodic working meetings of their officers to discuss implementation and cooperation, the Parties agree to meet at least annually at a mutually convenient location.

Article 5

The Director for International and Academic Affairs of the U.S. National Institute of Standards and Technology and the Head of the International Cooperation Section of the State Committee of the Russian Federation for Standardization, Metrology, and Certification will be the Executive Agents and will conduct administrative affairs in connection with cooperation under this Memorandum.

Article 6

Protection of intellectual property and rights thereto are set forth in Annex I, which is an integral part of this Memorandum.

Article 7

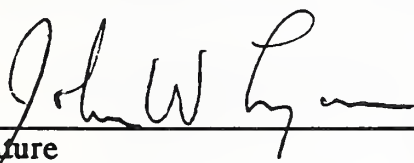
Nothing in this Memorandum shall be construed to prevent either Party from carrying out cooperation with third countries in the fields covered by this Memorandum.

Article 8

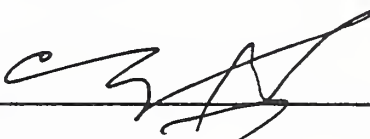
1. This Memorandum shall enter into force upon signature by both Parties and shall remain in force for five years.
2. Either Party may terminate this Memorandum upon 60 days written notification. Specific projects that may be underway at the time of termination of this Memorandum may be continued if mutually agreed in writing.
3. This Memorandum may be amended or extended by written agreement of the Parties.

FOR THE U.S. NATIONAL INSTITUTE
OF STANDARDS AND
TECHNOLOGY:

FOR THE STATE COMMITTEE
OF THE RUSSIAN FEDERATION
FOR STANDARDIZATION,
METROLOGY, AND
CERTIFICATION:



Signature



Signature

Place

Place

March 23, 1993
Date

23.03.93
Date

ANNEX 1

INTELLECTUAL PROPERTY

Pursuant to Article 6 of this Memorandum of Understanding:

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Memorandum and relevant implementing arrangements. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Memorandum and to seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Annex.

I. SCOPE

A. This Annex is applicable to all cooperative activities undertaken pursuant to this Agreement, except as otherwise specifically agreed by the Parties or their designees.

B. For purposes of this Memorandum, "intellectual property" shall have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.

C. This Annex addresses the allocation of rights, interests, and royalties between the Parties. Each Party shall ensure that the other Party can obtain the rights to intellectual property allocated in accordance with the Annex, by obtaining those rights from its own participants through contracts or other legal means, if necessary. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.

D. Disputes concerning intellectual property arising under this Memorandum should be resolved through discussions between the concerned participating institutions or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of UNCITRAL shall govern.

E. Termination or expiration of this Memorandum shall not affect rights or obligations under this Annex.

II. ALLOCATION OF RIGHTS

A. Each Party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, reports, and books directly arising from cooperation under this Memorandum. All publicly distributed copies of a copyrighted work prepared under this

provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.

B. Rights to all forms of intellectual property, other than those rights described in Section II.A. above, shall be allocated as follows:

1. Visiting researchers, for example, scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under the policies of the host institution. In addition, each visiting researcher named as an inventor shall be entitled to share in a portion of any royalties earned by the host institution from the licensing of such intellectual property.

2. (a) For intellectual property created during joint research, for example, when the parties, participating institutions, or participating personnel have agreed in advance on the scope of work, each Party shall be entitled to obtain all rights and interests in its own territory. Rights and interests in third countries will be determined in implementing arrangements. If research is not designated as "joint research" in the relevant implementing arrangement, rights to intellectual property arising from the research will be allocated in accordance with paragraph II.B.1. In addition, each person named as an inventor shall be entitled to share in a portion of any royalties earned by either institution from the licensing of the property.

(b) Notwithstanding paragraph II.B.2(a), if a type of intellectual property is available under the laws of one Party but not the other Party, the Party whose laws provide for this type of protection shall be entitled to all rights and interests worldwide. Persons named as inventors of the property shall nonetheless be entitled to royalties as provided in paragraph II.B.2(a).

III. BUSINESS-CONFIDENTIAL INFORMATION

In the event that information identified in a timely fashion as business-confidential is furnished or created under the Memorandum, each Party and its participants shall protect such information in accordance with applicable laws, regulations, and administrative practice. Information may be identified as "business-confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.

AGENDA

Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Tuesday, March 23, 1993

Green Auditorium

9:30 AM Welcome Remarks

Mr. Raymond G. Kammer, Acting Director
National Institute of Standards and Technology (NIST)
U.S. Department of Commerce (DOC)

Dr. Serguei F. Bezverkhi, President, State Committee of the Russian Federation
for Standardization, Metrology and Certification (GOSSTANDART)

Introduction of Standards Working Group Members

Dr. Stanley I. Warshaw, Director, Office of Standards Services, NIST
Mr. Vladimir N. Otrokhov, General Director International, GOSSTANDART

10:00 AM

Keynote Address

"International Trade; Economics and Standardization"

Dr. Franklin J. Vargo, Deputy Assistant Secretary for Europe
International Trade Administration (ITA), DOC

10:30 AM

International Standardization; "U.S. Government Perspective"

Mr. Lyle Sebranek, Director
Office of Food Safety and Technical Services,
U.S. Department of Agriculture (USDA)

Mr. Walter B. Bergmann, II, Director
Manufacturing Modernization Directorate,
U.S. Department of Defense (DOD)

Dr. Dennis Bodson, Assistant Manager
Technology and Standards, National Communications System

Mr. Philip B. White, Director
Office of Standards and Regulations,
U.S. Food and Drug Administration (FDA)

11:30 AM

Break

11:45 AM

International Standardization; "Regional Considerations"

- European Community

Dr. Charles Ludolph, Director of European Community Affairs, ITA

- North America

Mr. John Donaldson, Chief

Standards Code and Information Program, NIST

- South America

Dr. George A. Sinnott, Director

Office of International and Academic Affairs, NIST

1:00 PM

Lunch

2:00 PM

International Standardization; "Russian Government Perspective"

Dr. Serguei F. Bezverkhi, President, GOSSTANDART

Mr. Vladimir N. Otrokhov, General Director International, GOSSTANDART

Dr. Stanislav I. Podlepa, Director, Institute for Standardization, GOSSTANDART

Dr. Alexander D. Kozlov, Director, Center for Standardization and Certification
of Raw Materials and Chemicals, GOSSTANDART

Dr. Andrey A. Sakov, Vice Director

Russian Research Institute for Comprehensive Information
on Standardization and Quality (VNIKI), GOSSTANDART

4:45 PM

Signing of Memorandum of Understanding between NIST and GOSSTANDART

Dr. John W. Lyons, Acting Under Secretary for Technology

Dr. Serguei F. Bezverkhi, President, GOSSTANDART

AGENDA

Intergovernmental U.S.-Russian Business Development Committee's Standards Working Group

Wednesday, March 24, 1993

Lecture Room D

- 9:00 AM Organizational Presentations by GOSSTANDART, American Petroleum Institute, American Society of Mechanical Engineers, American Society for Testing and Materials, Edison Electric Institute, Electronic Industries Association, Gas Appliance Manufacturers Association, Institute of Electrical and Electronics Engineers, National Board of Boiler and Pressure Vessel Inspectors, National Electrical Manufacturers Association, and Underwriters Laboratories
- 10:30 AM Break
- 12:30 PM Lunch
- 1:15 PM Continuation of Discussions
- 3:00 PM "Standards-Related Information"
- Mrs. JoAnne R. Overman, Manager, National Center for Standards and Certification Information (NCSCI), NIST
Dr. Andrey A. Sakov, Vice Director, Russian Research Institute for Comprehensive Information on Standardization and Quality (VNIKI), GOSSTANDART
- 4:00 PM Tour National Center for Standards and Certification Information
- Presentations by NCSCI Staff

U.S. - RUSSIAN STANDARDS WORKING GROUP

March 23, 1993

Welcoming Remarks

Raymond Kammer
Acting Director

National Institute of Standards and Technology

Good Morning!

I'm Ray Kammer, the Acting Director of the National Institute of Standards and Technology, and it's my great pleasure to welcome you to Washington and to NIST.

This is the second meeting of the Standards Working Group created by the Intergovernmental U.S.-Russian Business Development Committee; the first session took place in St. Petersburg, Russia, last September. In a sense, however, this represents a third meeting of many of those present today. In March 1991, under the auspices of the U.S.-U.S.S.R Joint Economic Commission, a strong working relationship was established between our two sets of standards officials, and -- in effect -- this Standards Working Group was established.

We at NIST consider collaboration and cooperation between our countries to be a golden opportunity for peaceful exchange of scientific and technical information for our mutual benefit. To this end, we have welcomed 20 Russian scientists who are currently working as guests alongside members of our staff in our Physics, Chemistry, Materials, and Electronics Laboratories and in our program for Standard Reference Materials.

In addition to the benefits of basic scientific exchange, this spirit of cooperation is particularly important as we strive to improve trade between our two nations, especially during this period of economic transition in your country. The efforts of this Standards Working Group can contribute significantly to increasing harmonization of our standards and methods of conformity assessment.

We have already seen important standards-related progress as a result of the earlier meeting of this group. Since last September we have established information exchange mechanisms between NIST's National Center for Standards and Certification Information and the

Russian counterpart, VNIKI, whose full name is too hard for me to attempt! Information has already started to flow.

In addition, we have received strong support from some of the major U.S. standards organizations, many of whom have participated in these meetings and are here today. Special thanks go to the American Society for Testing and Materials (ASTM), the Institute for Electrical and Electronic Engineering (IEEE), the American Society for Mechanical Engineering (ASME), and the American Petroleum Institute (API), all of whom have graciously and generously donated full sets of their standards to GOST.

We have also jointly developed a Memorandum of Understanding between our respective governmental organizations, the formal signing of which will take place later today.

I therefore wish you well in your meetings this week, and I sincerely hope that you will enjoy your stay in the Washington area and will come back often.

Welcoming Remarks

**Dr. Serguei F. Bezverkhi
(GOSSTANDART)**

Good morning, ladies and gentlemen, I am Serguei Bezverkhi and I represent Russia's GOSSTANDART. I am happy to welcome you all on behalf of the Russian delegation. I am most grateful to Mr. Kammer for his warm words of welcome extended to us. It is our pleasure to see here leading experts in various major sectors of standardization in the United States. Those of you who participated in the first USSR/USA meeting in September last year in St. Petersburg indeed confirmed that the work done there was useful, and we fully share this point of view. For us in Russia this is a painful period of transition to market economy, and it is very important for us to take into consideration experience collected by our foreign colleagues in order to develop as quickly as possible the standard base maximally harmonized with international rules and procedures. I read a lot about the American system of standards and metrology, and I am happy to have this opportunity to personally meet you here and to realize the Russian proverb: "It's better to see once than to hear many hundred times." Yesterday's visits to NIST's laboratories confirm the correctness of this proverb. I have to say that I was very favorably impressed by cooperation between government and industry and development in your technologies here so that the standards are met and fulfilled.

In conclusion of my brief introductory remarks, I must say that we're very interested in hearing your talks, and we shall provide you the best possible and the fullest possible information about the development of our system of standards and certification, particularly since from September last year until now some considerable and important movements have taken place in Russia from the point of developing the legal base as how to organize this in the Russian Federation. I am grateful once again to organizers for excellent conditions of the work here, and we hope that this work will be fruitful for both sides. Thank you.

**PRESENTATION TO INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEES STANDARDS WORKING GROUP**

**Frank Vargo, Deputy Assistant Secretary for Europe
U.S. Department of Commerce**

Stan, thank you very much. Dr. Bezverkhi, ladies and gentlemen. I'm very pleased and in fact privileged to meet today with representatives of both the Russian and American standards communities.

These are very historic times in the relationship between our two countries. America supports the development of democracy and a market economy in Russia. The stakes are very high. As Secretary Christopher said yesterday and as most of you saw in the papers today, nothing less is involved than the avoidance of a renewed nuclear threat spreading instability and devastating set back for world democracy if Russia fails. America believes in Russia's future. America is Russia's best partner, and America wants to become Russia's largest commercial partner.

These are very difficult times in Russia, both politically and economically. Russia needs to take many steps in its change from a centrally-managed economy to a market economy. The move is not an easy one. Halting the movement towards hyperinflation is certainly at the top of the list for the most urgent economic action at this time. Privatization, an effective banking system, a clear set of commercial laws are also among the requirements, as are effective systems of standards and conformity assessment. For no industrial nation can function without a modern and efficient standard system. No nation can hope to become a major exporter of manufactured goods without effective quality control and certification systems. Standards and their implementation are among the keys to Russia's future. They are also a key to America's future and America's competitiveness and to the interrelationship among our two countries.

So it is most fitting as the drama of market reform and democracy evolves today in Moscow and in other parts of Russia and the new independent states, that we are here today to examine our roles in working together in standards and in trade.

I'd like to speak briefly to our Russian friends about the American standards system because it has helped the United States to develop into the global, technological leader that it is. Our system is unique in its reliance on the wide-spread participation of the private sector. Over 400 private organizations take part in our system, as well as the Department of Commerce and other government organizations. In all, roughly half of the standards developed in the United States has come from the private sector.

Our system emerged as America became a major manufacturing power at the end of the last century, and it has provided a flexibility and an efficiency that has supported and enabled the innovation for which American industry is justifiably known. In fact, after WW II American standards were preeminent worldwide. Products meeting American standards

could be sold virtually anywhere in the globe. Today American standards in conformity assessment marks still denote the highest quality, providing assurance of performance and safety. Unfortunately, this in itself no longer enables American products necessarily to be sold unimpeded in markets around the world. This is because there has been an explosion of standards worldwide. There are now in excess of 500,000 national standards globally. Half a million! Far too many of these represent different standards for the same product and frequently are unjustified barriers to trade.

Standards can either facilitate and support the expansion of international trade or can retard and impede it. This is particularly true in certification and conformity assessments. The United States is the world's largest exporter. So it is understandable that American companies have a major stake in seeing that standards are a positive and not a negative force in world commerce. American companies and world markets are becoming more interdependent. The spread of international investment by American companies and other multinationals has accelerated the need for the interchangeability of production technologies and products. For example, America exports a little more than \$100 billion annually to the European Community. But American corporate affiliates in the European Community each year produce and sell close to \$700 billion annually. If this production were ranked among European nations, the combined output of American companies in the European Community would rank as the equivalent of the fifth largest economy in Europe! But the flow is not one way, it is two way; and European companies now produce about \$500 billion of goods and services annually in the United States. This growing interdependence--together with constantly rising consumer demands for quality, for safety and for meeting environmental needs--is placing an increasing requirement for better and more harmonized standards in the global marketplace.

To seek to reduce the use of standards as technical barriers to trade, the United States has played a leading role in the GATT, the General Agreements of Tariffs and Trade. The first result of that effort was the 1979 agreement on technical barriers to trade, known as the Standards Code. This code, however, was only a beginning, and we are still far from the goal of eliminating standards as actual and potential barriers to trade.

In the Uruguay round of GATT negotiations we are seeking to improve the Standards Code, and we are optimistic that further progress will be possible. A second effort of the United States increasingly has been to support the development of global standards--particularly true with the International Standards Organization (the ISO) and the International Electric Technical Commission (the IEC). Most member bodies of the ISO and the other organizations are governmental institutions or at least governmentally-supported. The United States is represented in ISO and IEC by the American National Standards Institute, ANSI, which is virtually the only body there not receiving government funding.

This has been a costly problem. The financial burden of U.S. participation has fallen basically on the backs of U.S. companies. The motivation of the United States to recognize the importance of the international standards process has grown significantly in recent years. The emergence of the European Community's EEC 1992 Program has been particularly significant, because this program has created a very real possibility of the development of

regional standards that could raise entire new classes of technical barriers to trade. The emergence of regional barriers could compartmentalize trade and raise considerably the cost and difficulties of selling in world markets.

In intensive public sector and private sector discussions with the EC Commission and EC standards groups in recent years, the United States and the EC have both agreed on the desirability of emphasizing global standards in the international process as the first recourse. This goal is not without difficulty for both the EEC and for the United States. How best to assign priority to participating fully in the development of world standards is an important question in the United States because of our unique blend of private and public involvement in the standards process.

It is clear, however, that our interests and the interests of all other world trading nations lie in making the international standards process work. Global standards, not regional ones, are what is required to facilitate the future growth of world trade.

Russia's participation in the global standards process is vital to Russia's future, as well as to ours and other trading nations. Russia is not a technological lightweight. Russia has developed many new technologies and has an extremely strong scientific community that will develop even more technologies in the future. Russia also has a huge economy that--once it makes the successful transition to a free market system--will become an increasingly large market and global competitor. As Russia looks forward to its future role, it needs to add its weight--it's very considerable weight--to ensure the global standards system functions in a way as to minimize barriers to trade.

Russia is a great country, spanning eleven time zones. It has an ocean to ocean economy with 200 million people. In terms of assets, Russia easily ranks among the richest countries in the world. It has, for example, half of all the world's natural gas. The Middle East by comparison has about third of the world's oil. Russia also has half the world's forest resources, and it has a well-educated population and a strong scientific community. Today though, while being very asset rich, Russia is very income poor. But with successful economic reforms, Russia has the promise of becoming the world's fastest-growing economy in the 21st century which is not so far away now.

The task of reform, however, is formidable. Look at some of the challenges:

Creating real money, for example. The ruble has never performed in the past the key functions of money, such as being a medium of exchange.

Overcoming monopolies. Over two thirds of the products produced in Russia are made in no more than two factories per product, an enormous amount of concentration of production--an almost complete absence of competition.

Solving inflation. The inefficient and very highly protected enterprises in Russia face great difficulty in staying in business without huge government subsidies, but these subsidies pump up the money supply and are a main cause of the threatening hyperinflation. Over the past

12 months prices in Russia have risen more than 1,500 percent.

Defense conversion. Perhaps a third or more of Russian production is in the defense industries, including most of Russia's most technologically capable enterprises. Military orders have been slashed dramatically, and Russia's huge defense industry must convert to civilian output or go bankrupt.

These are very formidable challenges.

But it is important also to understand that Russia has already made impressive progress in a short period of time. The marketplace now sets over 80 percent of the prices in Russia. This is a startling accomplishment in a very short period of time, and this is the first and most essential step before becoming a market economy.

Additionally, over one third of the smaller enterprises and shops in Russia are now in private hands. The privatization program for Russia's large enterprises has been launched and is deemed to be a practical one with an excellent chance for success.

The Russian economy also is no longer isolated from the world marketplace. The loss of its former captive East European suppliers and former Soviet Republic suppliers forces Russia to learn how to compete in the world market, and there is no turning back. Producers and farmers, additionally, are now free of the necessity to supply their output in a planned fashion to the state. They are now selling it on the market place for increasingly closer to its true market value.

Now there are extremely serious political, constitutional and economic problems that must be solved--some of them very urgently, as you see in the papers everyday. Even after their solution, the Russian economy will take years to begin to emulate the level of living standards in the West. The task of reform is basically up to the Russians. No one can do it for them, but America can help and is helping. We are helping through our program of government assistance and through participation in multilateral programs.

But the most significant help from America is not through the government, but through the private sector. American companies are already the largest foreign investors in Russia, although the amounts are small. The roughly \$400 million American companies have invested in Russia is much less, for example, than the \$2 billion that American companies have put into Hungary--which is a much smaller economy.

This difference, though, indicates the possibilities for the future as Russia improves its commercial environments for trade and investment. The need for an improved commercial environment brings me to my major point: the task of the Bilateral Standards Working Group.

This Group has a continuing task to seek to harmonize national standards and conformity assessment procedures and to participate in strengthening the development of world standards by international standards organizations. The longer-term goal is to eliminate

standards and conformity assessment as obstacles to trade and investment between our countries and to promote the development and use of standards that will support and facilitate the expansion of commerce. But there are short term goals as well, and I would like to point to one because we have an immediate problem to discuss concerning Russia's new certification requirements that went into effect in January 1993.

The purpose of these new requirements is a good one: to protect Russian consumers in terms of safety and the quality of products, including imports. But it is important that American goods not be denied entry and that U.S. marks for safety and other standards be accepted by Russian authorities. Trade between our countries is very small today, especially in manufactured goods. But as we stand at the threshold of what we believe will be a constantly-growing and increasingly important commercial relationship, it is necessary that we do so in a way that will promote trade.

The historic trade agreement that now exists between our countries and that provides the mutual granting of "Most Favored Nation, MFN" treatment stipulates very importantly non-discriminatory treatment in standards. It states, and I quote: "that each party shall accord products imported from the territory of the other party treatment no less favorable than that accorded to like products originating in any third country in relation to technical regulations and standards including conformity, assessment and certification. Furthermore, the parties shall ensure that technical regulations and standards are not prepared adopted or applied in a discriminatory manner or with a view towards creating obstacles to bilateral trade or to protect domestic production".

American companies, unfortunately, are reporting delays and customs denials as a result of the new regulation. So it is vital that discussions in the working group in these meetings resolve this issue. I believe it would also be useful to consider the full acceptance of American standards and conformity assessment marks as fulfilling the safety and other requirements needed in Russia. I hope this can receive full discussion as a means of promoting the growth of our presently small trade and as a means of further encouraging a rapid increase in American investment in Russia.

I believe these are extremely valuable meetings. Our Russian friends will hear and see how deeply interested America is in Russia's future. You will see how both in the private sector and in government we want to work with you to help the development of Russia, to improve its own future as a full partner and as an important player in the world economy--and as a growing trade partner for U.S. companies.

In the near term, certainly it is oil and gas, timber and other natural resources that--particularly with the participation by American and other investors--can begin Russia's path towards export growth and its expansion in world markets. But for Russia to become a major trading partner and a major competitor in world markets, Russia must become an exporter of manufactures; and we welcome this trade.

Unfortunately, today few people would point to Russian products as exemplifying the best of quality standards and services. A key role of GOSSTANDART of Russia must be to

change this image and the facts behind it. Raising the quality of production is absolutely essential to Russia's future. We want to help and we can help. It is in our interest to help and in our interest to develop a growing trading partner. I note that American standards organizations such as, ASME, SAE and IEEE and others have provided GOSSTANDART of Russia with copies of their standards without charge and I commend them for this valuable action. I apologize to any others that I did not name.

Through NIST the Department of Commerce has offered cooperative assistance as well and is looking for additional means of working together. We are exploring the possibility of more exchanges, the possibility of helping to provide quality improvement cooperation through joint centers or perhaps through the new American business centers that will be going in throughout Russia. We are also exploring the possibility of placing U.S. experts in Moscow.

Today, I would like to announce the Department of Commerce is beginning a new initiative, to make available to the U.S. private standards community the SABIT intern program, the Special American Business Intern Training Program. Under this program we will provide financial assistance for your organizations to bring experts and specialists from GOSSTANDART and from other Russian and NIS standards organizations, public and private, for internships in your organizations. We will cover the round trip airfare and per diem expenses of the interns. This program can help train Russian standards experts and can provide a closer familiarity with U.S. standards and conformity assessment programs. We believe it will strongly benefit both countries, and we will be providing a packet later today with full details to all participants in these meetings.

So Dr. Bezverkhi and distinguished participants, I believe the work that you conduct today will pay enormous dividends for the future of business between our two countries and will build a strong foundation for the combined mutual effort to improve and open the international standards process and contribute to the stability in the world that we want for ourselves and our children. Thank you very much.

REMARKS BY LYLE SEBRANEK, DIRECTOR,
OFFICE OF FOOD SAFETY AND TECHNICAL SERVICES
FOREIGN AGRICULTURAL SERVICE
U.S. DEPARTMENT OF AGRICULTURE
TO THE
INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS DEVELOPMENT
COMMITTEE'S STANDARDS WORKING GROUP MEETING
MARCH 23, 1993

International standardization is a critical aspect of promoting and facilitating the worldwide trade of agricultural commodities. This is particularly important for the United States and for the Russian Federation due to our long-standing trade in agriculture.

This past year, U.S. exporters shipped more than \$42 billion in agricultural commodities, animal products and processed foods to over 200 countries, including more than \$2 billion in agricultural products to the Former Soviet Union. Despite our strong emphasis on agricultural exports, the United States, with \$24 billion in imports for calendar 1992, is also one of the world's largest agricultural importers.

The basic point is that whether we look at exporting or importing, traders in agricultural products face a myriad of sanitary, phytosanitary, packaging, labeling and quality standards with which they are obliged to comply by government regulations or by private contracts.

While the concept of international harmonization of standards as a means of improving the regulatory puzzle faced by exporters world-wide is well recognized, it is equally well understood that establishing standards that are identical or widely accepted as equivalent is an arduous and painfully slow process. Despite these difficulties, however, a good deal of effort continues to be devoted to moving this process forward. In this regard, the U.S. Department of Agriculture (USDA) has continued to actively participate in a range of multilateral organizations and regional initiatives committed to long-term standards harmonization, including initiatives with the Russian Federation.

Because of the multi-jurisdictional structure governing agricultural standards development and regulatory enforcement in the United States, participation in developing agricultural standards in the international arena is often a joint effort among several U.S. Government agencies as well as private sector and consumer groups. This joint effort reflects the individual roles of our government agencies, the desire to receive input from interest groups, and the transparency of our system.

Before elaborating further on international activities dealing with agricultural standards, it may be useful to briefly highlight specific responsibilities of the major USG agencies involved with domestic agricultural standards-setting and enforcement with regard to agricultural products and food.

Within the Department of Agriculture, a breakdown of responsibilities includes:

-- the Food Safety and Inspection Service (FSIS), which ensures that fresh and processed meat and poultry products are safe, wholesome, unadulterated and properly labeled through inspection at slaughtering and processing establishments and inspection of imports;

--the Agricultural Marketing Service (AMS) which develops voluntary quality standards for a range of raw and processed agricultural products in addition to enforcing mandatory quality standards for a number of fresh fruits and vegetables. The AMS is also responsible for developing standards and certification requirements for organic foods;

--the Animal and Plant Health Inspection Service (APHIS), whose primary mission is to promulgate and enforce regulations to protect U.S. agricultural resources from exotic pests and diseases; and

--the Federal Grain Inspection Service (FGIS), which provides quantity and quality certification for U.S. grain exports.

USDA also works closely with the U.S. Food and Drug Administration which has food safety and regulatory jurisdiction over all other processed foods, including the responsibility to ensure that agricultural commodities and products meet the maximum pesticide residue tolerances established by the U.S. Environmental Protection Agency.

It's fair to say, I believe, that there is a conscious effort among our scientists and those involved in drafting regulations to take into consideration relevant international standards wherever possible. For example, in the area of plant health, APHIS works closely with the International Plant Protection Convention (IPPC) and the regional North American Plant Protection Organization to develop and utilize international standards. Phytosanitary certificates issued by APHIS currently comply with standards established by the IPPC as do our standards for certifying plant-related exports.

The Department of Agriculture is also actively involved in the work of the International Office of Epizootics (OIE) concerning health and sanitary requirements for the import and export of animals and products and with the work of the Joint FAO/WHO Codex Alimentarius Commission (CODEX) which is concerned with protecting the health of consumers, ensuring fair practices in food trade and promoting the coordination of food standards.

Because of the increased emphasis on food safety and technical impediments to trade in recent years, the efforts international organizations to develop viable and effective standards has grown increasingly important.

Further enforcing the importance of the international standards-setting process in the area of agriculture is the work in the current Uruguay Round negotiations of the GATT concerning the "Draft Agreement on the Application of Sanitary and Phytosanitary Measures" (SPS).

This proposed agreement would establish a multilateral mechanism to ensure the legitimacy of health-related measures that affect agricultural trade. While each country could continue to establish its own food-safety and animal and plant health standards, such measures, if stricter than international standards, should be based on science or a consistently applied level of acceptable risk. Sanitary and phytosanitary standards maintained by member countries that conform to international standards, guidelines or recommendations would be presumed to be consistent with GATT obligations.

Three international organizations are recognized for their expertise in setting standards in the text of the SPS proposal. They are: the Codex Alimentarius Commission, The International Office of Epizootics and the International Plant Protection Convention. The reference to CODEX, the IPPC and the OIE in the proposed GATT text has significantly increased pressure within these organizations in particular to strengthen and streamline their standards-setting processes. We have seen a similar heightened interest concerning international standards development from a range of trade and consumer groups in the United States.

Clearly, there are a host of special interests, concerns and needs that must be addressed, whether we are in the United States or the Russian Federation. Success at internationalizing standards that will foster improved health, trade and environment will best be addressed through open communication and a cooperative effort on all sides. Without movement toward uniform sanitary, phytosanitary, and quality criteria, agricultural trade will surely be constrained with an attendant increase in prices as traders attempt to calculate inherent risks.

This is particularly important for the Russian Federation as a means of facilitating its emergence into the global market place and the GATT.

DoD Presentation Text for U.S./Russia Standardization Meeting at NIST Hdqts.,
Mar 23-24, 1993.

U.S. DEPARTMENT OF DEFENSE PERSPECTIVE ON INTERNATIONAL STANDARDIZATION

Presented by: Mr. Walter B. Bergmann II, Director - Manufacturing Modernization,
Office of Deputy Asst. Secretary of Defense - Production Resources.

I. INTRODUCTION:

Good morning, Ladies and Gentlemen. I am the Senior Executive Director responsible for operational policies and administrative management of the Department of Defense's Standardization Program. I am very pleased and honored to be invited to address this group of distinguished professional standardization experts.

I am especially pleased to participate in this exchange of standardization information with our special guest, Dr. Bezverki, and the other Russian standardization experts at this meeting. Gentlemen, your participation in this meeting is very much appreciated and is most encouraging for continuation of a beneficial cooperative relationship.

During the next few minutes, I will give you a brief overview of the purpose, the management process, and the scope of interest established for the standardization activities conducted by the Department of Defense (DoD). I will direct special attention to our involvement in international standards development, application, and conformity assessment.

II. WHY DOD IS ENGAGED IN THE STANDARDIZATION BUSINESS.

For more than 55 years, the Department of Defense has engaged in the development or adoption of many descriptive technical documents referred to as "Standards" and "Specifications" to be used for procurement of many kinds of materiel products or industrial services required for supporting operations by the Military forces.

During the last 30 years, development of standards for materiel products and industrial services has become a major function in engineering, acquisition management, industrial-production, quality assurance verification, and product certification throughout the industrial world. Application of regional and international "standards" for mutual acceptance of world-trade products (both military and commercial products) is being

emphasized more and more each year by many national governments. During the same time period, **real international standardization** has become a much more vital and complex objective to achieve.

A basic reason for the DoD Standardization Program is the long-standing National Policy which requires that all products and services to be procured by the Federal Government shall be described in sufficient detail to facilitate publicly advertised solicitations of **multi-source competitive bids or proposals** from capable defense industries or commercial producers or distributors.

Net cost reduction is another valid reason for supporting the DoD Standardization activities. It is a fact that in the past years, many products, especially new-high-technology, high-quality products required for support of modernized operations of the Military Forces, were not available in the commercial market. The conception, design, and development of such products were often sponsored by the Defense Department; and, the prototype products were developed and produced in conformance with Military Specifications and Standards prepared by DoD technical experts and coordinated with industry experts. **For many years, those MIL Specifications and Standards were the most appropriate to be used for obtaining competitively-priced bids** for numerous production procurement contracts issued by DoD and by defense-systems Prime Contractors.

For many Military-use products, substantial cost savings resulted from the competitive procurement of combined quantities of the same, Military-specified standard products. **Continued use of the MIL-Spec. standard products has also reduced the training costs** for operation and in-service maintenance and repair of fielded military equipment.

III. WHY DOD IS INVOLVED IN INTERNATIONAL STANDARDIZATION ACTIVITIES.

DoD became involved in direct participation in international standardization activities shortly after the close of World War II. Military-equipment interoperability problems and critical shortages of interchangeable essential supplies encountered during the War were primary reasons for increased attention to international standardization. Later, the establishment and support of NATO and other multinational mutual defense alliances has required direct participation by DoD in many international standardization efforts pertaining to military operational equipment, weapon systems, and supplies for our Military forces.

Another reason for DoD's recent focus on international standardization is our national goal for expanding reciprocal opportunities for international import/export trade with Russia and the other cooperative countries in Eastern Europe and in the European - Community (EC) nations.

The basic purposes of the current DoD involvement in international standardization activities are:

a) To be prepared to share equitably in future multinational cooperative research and development and production programs for defense equipment and components and thus reduce the DoD expenditures for duplicative R&D costs and obtain lower prices for producing larger quantities of standardized equipment and supplies to be used by several nations.

b) The need to attain commonality, interoperability, and logistic intersupportability of the essential military equipment and weapon systems and supplies to be provided by participating nations to the multinational combined military forces engaged in joint operations for maintaining peace, for providing assistance and protection to nations facing humanitarian emergencies, and for deterring dictatorial military aggression.

c) To ensure that competitively-priced U.S.-made products intended for military markets (and also for some non-military markets) will be in conformance with mutually-agreed, appropriate international standards and will qualify for certification and acceptance for sale in Russia and the European Community and other cooperative industrial nations.

d) To ensure that competitively-priced products made in Russia and the European Community and other cooperative industrial nations in conformance with mutually-agreed international standards approved for DoD use, will qualify for certification and acceptance for sale to the U.S. DoD and defense industries. National standards adopted by several nations and used for Military materiel procurement, thereby become defacto "international standards" for defense-use products. Many DoD MIL Specifications and Standards are used as "preferred standards" in the European industrial nations.

IV. WHAT IS THE DEFENSE "STANDARDIZATION" PROCESS?

To be sure that my remarks are interpreted correctly, I think I should now explain briefly what I mean when I refer to the Defense "Standardization Program". The term "standardization", as used in my presentation, implies the entire complex engineering process including the planning, direction, and continuous performance of the following actions :

a) Evaluation and confirmation of users' identification of the need for additional kinds of materiel items or special technical processes required for facilitating proficient performance of repetitive operations by Military forces.

b) Obtaining **user-producer consensus** on the validity and accuracy of the technical definitions of the **essential physical and functional characteristics** for the identified materiel items and the functional limits of processes.

c) Conduct a search for and **perform a technical assessment of available commercial or industrial products or existing military products and the pertinent specifications/standards** (available from national or foreign sources) which may be suitable, with or without minor modifications, to adequately fulfill the users' identified needs, as confirmed.

d) **If identified available products are inadequate for reliable Military use, assign the appropriate technical experts to develop, coordinate, and issue consensus Military Specifications/Standards** containing detailed technical descriptions of the verified, **essential physical and functional characteristics** to be designed into the products. Part of this action is a **review of existing pertinent international and national standards** to ensure that the new Military specification is in conformance with existing pertinent international standards, to the maximum practical extent. **Verification of conformance with pertinent National Regulatory Laws and related standards**, e.g., environmental standards, safety standards, transport standards, quality certification standards, etc., is also required.

e) Monitoring the manufacturers' periodic inspection and test reports to ensure conformance of the products and processes with the specified configuration and quality requirements.

f) Monitoring the invocation of the **pertinent specifications and standards in the procurement contracts issued by the Military Departments and Defense Supply Agencies for acquisition of equipment and supplies**. This action is necessary to ensure **maximum commonality** of equipment and supplies procured by the various using departments and agencies and, thus, maximize the benefits derived from "standardization".

g) Periodic review and assessment of the existing specifications and standards for defense products to verify their continued use and **conformity with current technology and the pertinent U.S.-ratified international standards**. Normally, the specifications and standards are reviewed after every third year by the assigned Preparing Agency's technical experts. Based on their findings, the reviewers recommend retention, revision, or cancellation of each document. Recommendations for cancellation or revision are coordinated to obtain agreement from government and industry users.

h) Establishment and maintenance of **Defense Qualified Products Lists (QPL)** and related **Qualified Manufacturers Lists (QML)** in conjunction with Military Specifications/Standards for **selected, critical-use defense products** which require special quality/reliability conformance verification procedures.

i) Designation of qualified technical experts employed by the DoD to participate in the many technical committees and working groups sponsored by Government and non-Government standardization organizations engaged in development and publication of national and international standards related to products and services used by the Department of Defense.

V. DOD STANDARDIZATION PROGRAM STAFF ORGANIZATION.

The primary standardization actions I have described are directed and performed by my staff in the DoD Standardization Program Division and the Standardization Offices in the Military Departments and Defense Agencies. Approximately 43 Defense Agencies and Military Commands are directly involved in the DoD standardization activities. Approximately 1250 engineers, scientists, and administrative employees currently employed by the DoD Agencies and Commands are directly engaged, full time or part time, in the Standardization Program activities.

One of the 43 DoD Agencies or Military Commands is assigned the responsibility for conducting the required standardization actions for each of the specifications and standards listed in the Defense Index of Specification and Standards (DODISS). Selection of the Agency or Command to be responsible for a new standard is based on: a) the availability of the specialized technical expertise required for the type of product; and, b) the Military Department that will be the principle user; i.e., the Army, Navy, or AirForce.

VI. WHAT KINDS OF STANDARDS DOES DOD ISSUE AND ADOPT FOR WHAT USE?

The Specifications and Standards issued and adopted by DoD are used solely for defining the products or services to be procured from industry for use by the Military services. Defense acquisition policies are not announced in DoD MIL Standards and Specifications. The DoD MIL Standards do not regulate the activities of the general public or industry. However, where applicable, Federal Regulations are referenced in the pertinent requirements contained in the MIL Standards and Specifications; and, with few special-emergency exceptions, conformance with the regulations is mandatory.

DoD Specifications and Standards invoked in a procurement contract become legally "mandatory" for compliance by the Production Contractor. Compliance with International Standards invoked by reference in the procurement contract is also mandatory, unless deviation from the referenced Standard is authorized in the contract. The MIL Specifications and Standards used for procurement of defense-use products include the requirements for testing and quality control processes to be applied for product conformity assessment and certification purposes. For many products, the detailed

requirements for testing and quality control and conformity assessment processes are contained in selected standards referenced in the product specification.

In addition to the MIL Specifications and Standards developed and issued by DoD, we also adopt and use standards issued by other recognized non-government Standardization Organizations such as the American National Standards Institute (ANSI), the American Society for Testing & Materials (ASTM), the Society of Automotive Engineers (SAE), the Aviation Industries Association (AIA), the Electronics Industries Association (EIA), the International Standards Organization (ISO), the American Society of Mechanical Engineers (ASME), and numerous others.

There are more than 400 industrial standardization organizations operating in the United States. DoD technical experts actively participate in standards development work sponsored by 38 of the industrial standardization organizations. Standards produced by many of the other industrial standardization organizations are coordinated with DoD user agencies.

The primary DoD standardization activities I have described have produced one of the largest indexes of active standardization documents (specifications and standards) issued by any national or international standards organization. Presently, the Department of Defense Index of Specifications and Standards (DODISS) includes the following documents:

<u>Type of Document</u>	<u>Quantity Approved for Use in DoD Procurement Contracts</u>
Military MIL-Specifications	25,400
Military MIL-Standards	1,560
Federal FED-Specifications (DoD Adopted)	3,350
Federal FED-Standards (DoD Adopted)	134
Non-Government Industry Standards (DoD Adopted)	5,340
International Standards (DoD Participation)	1,730
Commercial Item Descriptions (CIDs) (DoD Issued)	<u>4,390</u>
Total DoD Standardization Documents	41,904

VII. COMMONALITY AND UNIQUENESS OF COMMERCIAL AND MILITARY PRODUCTS

The various manufactured products and services procured by DoD are not all unique products required only for the Military Services. The general public, the commercial world, and the industrial world all require many products and services that are similar to those procured for the Military Services. Some commercial products require very minimal changes to meet Military-use requirements; some can be used without any changes.

In recent years, a special effort has been organized to purchase many more commercial products selected to meet DoD's needs and thus reduce the number of unique MIL Specifications and Standards and use more "commercial" product specifications to purchase equipment and supplies for the Military forces. This commercial acquisition practice provides some realistic net benefits for DoD, such as:

- - Reduced purchase price for supply items.
- - Prompt availability of supplies.
- - Latest technology advantages.
- - Existing logistic support structures.
- - Reduction of development costs.

VIII. RECENT EMPHASIS ON DOD INTERNATIONAL STANDARDIZATION ACTIVITIES.

As I mentioned previously, the Department of Defense became directly involved in international standardization activities shortly after the close of World War II. At that time, the effort was directed to reduce the "battlefield" interoperability problems and mutual supply-shortage problems encountered with our allies during the War. In the following years, many of the problems were resolved by multinational agreements to use identical equipments and supply items, most of which were manufactured in two countries, the U.S. and the U.K.

Today, in 1993, the "battlefield" interoperability problems have reappeared as a result of increase in the number of active Producers of Military Equipment and Supplies in more countries, increased reliance on multinational joint-forces operations; and, lack of adequate use of common standards by the manufacturers in the producing countries.

DoD is directly involved in international standardization activities with the NATO nations and several other alliance nations and friendly nations. Our primary standardization effort with the NATO nations is supported by technical experts from the Military Departments and Defense Agencies participating as U.S. representatives on 220 standardization working groups sponsored by the civilian and military authorities at NATO headquarters.

At this time, the first priority task in the NATO standardization program is the planning and development of NATO consensus standards to achieve **optimized interoperability of the Military equipment and systems** to be used by the multinational combined defense forces. When more than two NATO nations agree to use the same specification or standard document, it is then recognized as an **"international standard"** preferred for applications in NATO multinational joint development and production programs. As I noted previously, numerous U.S. MIL standards are adopted by NATO nations.

The second priority task for NATO is to establish closer cooperation between NATO Standardization Working Groups and the European Community Industrial Standards Organizations and, also, the International Industrial Standards Organization (ISO) in which Russian standards users and developers are now involved. Closer cooperation with these multinational standardization organizations is planned to encourage the development and maximum multinational use of common standards for Military and Civilian products and, thus, reduce international trade barriers.

A third priority task in the NATO standardization program is the establishment of an efficient and secure **automated data base** for NATO standardization data to be readily accessible by NATO nations' defense industries. The U.S. CALS automated data base program is being used as a pattern for the NATO automated data base program.

IX. RESPONSE TO RUSSIAN INQUIRY REGARDING THE DOD PRODUCT CONFORMANCE ASSESSMENT PROCESS

In conjunction with the "common" standards effort, the NATO nations are trying to establish a **Standardization Agreement (STANAG)** for compatible certification procedures for product conformance and thereby facilitate efficient reciprocal qualification and certification of foreign-made products. The objective is to ensure mutual acceptance of qualified foreign-made products that may be offered for sale in all participating countries in competition with equivalent products produced in-country. A basic goal is equitable sharing of competitive trade opportunities by all participating industrial countries.

Recent information obtained from participating European sources indicates that the European Community (EC) authorities are seriously considering adopting a process similar to the NATO process for reciprocal qualification and conformance certification of

products imported and exported between the EC countries and several other cooperative countries, including the U.S., Canada, and also Russia.

Our Russian standardization cohorts, here with us today, may be interested in learning that recently, after considerable effort, the DoD has established bilateral agreements with several cooperative nations which reflect a refinement of the NATO concept for reciprocal qualification/certification of multi-source equivalent products to be used in NATO cooperative development and production programs. If the current, welcome trend toward closer cooperation between Russia and the United States continues, negotiation of a similar bilateral agreement with Russia may be desirable.

Thank you for your attention. Are there any questions regarding the information I have exchanged with you today? I'll try to answer them now or later, if necessary, by mail in the next few weeks..

END

International Standardization
U.S. Government Perspective

Dr. Dennis Bodson
National Communications System
Assistant Manager for
Technology and Standards

In my presentation today, I will briefly discuss three topics. First, I will describe parts of the mission of the National Communications System to provide the context in which our work in international standards takes place. Second, I will summarize some of the principles of international standards that we consider important in providing national security and emergency preparedness communications, in addition to their importance in cost-effective procurements. Third, I will discuss our concept of the technical architecture of emerging telecommunication and information systems and will point out some of the national and international committees in which we most actively participate.

The second slide contains excerpts from the Executive Order that established the National Communications System. The excerpts quoted here apply to the parts of the mission that most directly pertain to our work in international standards. As the slide indicates, commercial networks are an essential part of the national security and emergency preparedness telecommunications system.

On the third slide is shown the interaction between the Office of the Manager, National Communications System, and other organizations. The NCS Member Organizations participate in the committees shown on the right, the Committee of Principals (COP) and the Council of Representatives (COR). Those committees on the left are composed of representatives from the telecommunications community and provide for them direct input to the Office of the President on matters affecting national security and emergency preparedness telecommunications. Through the National Security Telecommunications Advisory Committee (NSTAC), the Government is able to make known to high-level members of industry its communication concerns and to seek their advice. The President often initiates correspondence to the NSTAC. The Industry Executive Subcommittee (IES), which works on details of issues, is supported by working groups and task forces. As the slide indicates, the Manager of the National Communications System is dual-hatted as Director of the Defense Information Systems Agency; the Executive Agent is dual-hatted as Secretary of Defense.

The fourth slide lists the broad areas in which my office, the Office of Technology and Standards, works. Much of our work is performing analyses and studies on the emerging telecommunication technology so that we can participate intelligently and actively in commercial standards committees. Many years in the past, standards development was largely history writing. That is, when practices, protocols, and interfaces became widely accepted, they were documented in standards.

Today, however, standards development is anticipatory. Standards development precedes implementation of the technology so that new products and services can be part of open systems with non-proprietary interfaces. The skills for standards development have become largely those of systems engineering and development.

My office manages the Federal Telecommunication Standards Program. As part of this program, I chair the Federal Telecommunication Standards Committee (FTSC). Members of the FTSC are technical experts from the NCS Member Organizations and other Government organizations. The FTSC considers operation and implementation aspects of the emerging telecommunication technology and makes decisions as to the best method to provide interoperability of Government communications. Sometimes, international standards are so widely accepted that no additional Government standards are required. We need only understand and properly apply the international standards. Other times, additions to or subsets of the standards must be developed for our requirements. In certain areas, such as high frequency radio, there is not sufficient interest to develop commercial standards, so the Government develops its own standards.

The fifth slide highlights three principles that I have found must be continuously applied in providing for reliable national security and emergency preparedness telecommunications. The first is that international standards must be the basis for interoperable systems. Because of the complexity of modern communications systems, detailed technical analyses of all possible interoperation scenarios on every system that might need to interoperate are not practical. If interfaces conform to standards, however, only the standards, that apply to many systems, need be analyzed. This is still a formidable task, but less than examining each interface in each system. For international users and providers of communications, such as the Federal Government, international standards provide the most cost-effective solution worldwide. While it is possible to design gateways and adapters between systems that conform to other than international standards, conversion of complex protocols is expensive and slow.

The second principle on this slide deals with the skills to apply standards. Of course, a communication system must be designed from the top down. The user's requirements are the top level. Then, following the analogy of the Open System Interconnection (OSI) architecture, we work down from presenting the information to the user through network and link connections to the physically transmitting bits of information. The user's application may interact with other applications during the session to obtain other services, such as access to data bases in diverse geographic locations. However, the lower layers support the upper layers, so services required by the upper layers must be chosen with a thorough knowledge of what can be cost-effectively supplied by the lower layers. In other words, user "requirements" are often based on what is economically available.

(Who would have said 20 years ago that a personal computer is required for each engineer designer?) To collect requirements without having a thorough knowledge of the underlying technology does not lead to cost-effective systems. The underlying technology is best described by anticipatory standards.

The last principle is sometimes the hardest to apply. There are situations when technology development moves faster than our planning process. In those cases, it is necessary to redirect programs significantly in mid stream in order to have the most cost-effective end product. New technology usually brings lower maintenance costs, easier operation, and more versatile features that should be considered in life-cycle cost trade-offs. Examples of areas that are changing rapidly are common channel signaling and network management systems and the intelligent network features that they support.

The sixth slide summarizes the reasons we select standard equipment. First, the economies of scale with large scale integrated circuits are such that even tens of thousands of copies do not fall past the knee on the graph of cost per unit. The larger the expected customer base, the lower the expected cost per unit. International standards have the largest customer base. Second, new communications equipment will have automated testing features that lower maintenance costs. Stored program digital telephone switches deployed today can often be monitored and restored from remote locations, reducing personnel costs. Third, many new protocols implemented in LSI chips or in commercial-off-the-shelf software contain so many features that a match between user requirements and commercial equipment can usually be made if the features of the equipment are well understood. For example, the protocol for signalling system number 7 contains a "category of user" field that can indicate national security and emergency preparedness calls. The standard integrated services digital network (ISDN) bit rates (e.g., 64 kilobits a second for "B" channel) may be more economical to use than lower rates if the protocols and line drivers are implemented in LSI chips.

The seventh slide gives an overview of the way in which telecommunication systems will evolve. For the user, the most noticeable characteristic is that there will be common, standard interfaces to support a variety of audio, visual, and data applications. Integrated Services Digital Networks (ISDNs) and Broadband ISDNs (B-ISDNs) are the standard interfaces. Logically separate signaling and Telecommunication Management Networks (TMNs) will manage, restore, and provision the switched networks. Wireless communications will proliferate. Personal communications services, directory numbers independent of geographic location, and other services will be possible because of wireless communications and data bases included in the signaling and network management systems.

The eighth, and last, slide summarizes the major areas of technology affecting national security and emergency preparedness

telecommunications and shows some of the standards committees working in the areas. The second column indicates that the Federal Telecommunication Standards Committee (FTSC) is our premier committee for discussing national security and emergency preparedness interoperability aspects. The Office of the Manager, National Communications System, performs much of the technical analyses and standards development. (Please note that a on the slide "OMNCS" was omitted in the Security area. This was a typographical error; the OMNCS is very actively involved in the telecommunications security area.) The American National Standards accredited committees prepare both national standards and U.S.A. contributions to the international standards organizations. While the International Telegraph and Telephone Consultative Committee (CCITT) is the premier international organization for telecommunication system standards, the International Organization for Standardization (ISO) develops important telecommunication standards with emphasis on terminal interfaces. The CCITT is a treaty organization, part of the United Nations; the ISO is a voluntary standards organization. We participate in the ISO and the joint ISO-International Electrotechnical Committee (JTC). (The CCITT is now known as the Telecommunication Standardization Sector of the International Telecommunications Union.)



International Telecommunication Standards

Dr. Dennis Bodson

National Communications System

Assistant Manager for

Technology and Standards

International Telecommunication Standards



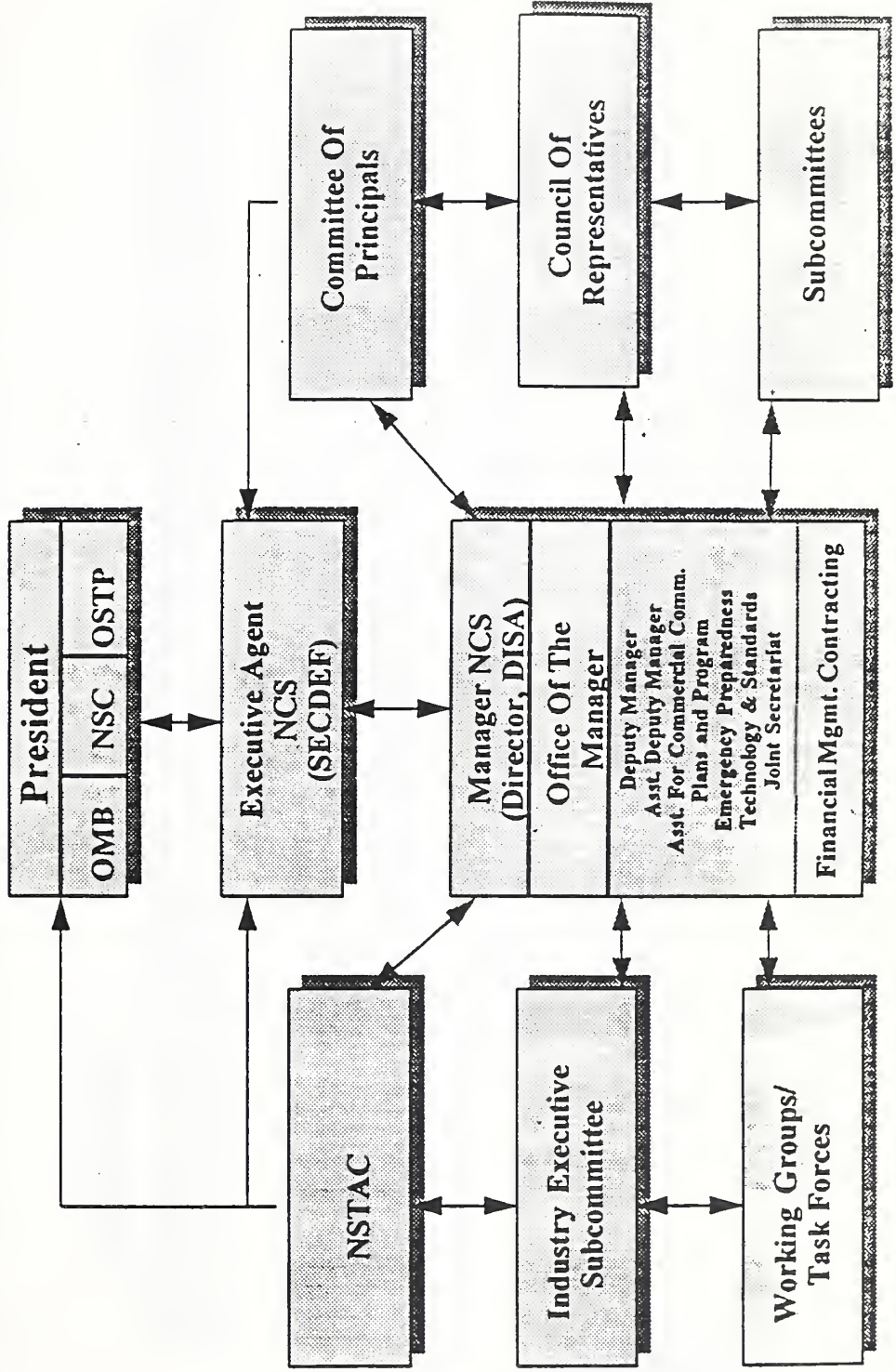
National Communications System

- Federal Government organization that assists the President "in the coordination of the planning for and provision of national security and emergency preparedness communications under all circumstances. . . ."
- Seeks "to ensure national telecommunications infrastructure . . . [to satisfy] priority . . . requirements under all circumstances. . . using commercial, government, and privately owned telecommunications resources."



International Telecommunication Standards

Joint Industry-Government Planning Framework





International Telecommunication Standards

NCS Technology and Standards

- **Manages the Federal Telecommunication Standards Program.**
- **Develops procedures and standards for minimizing impediments to interoperability of Government telecommunications.**
- **Conducts technical studies and analyses.**



International Telecommunication Standards

Principles for Interoperable Systems

- **International standards are the basis for interoperability.**
- **To design interoperable systems from the top down, it is necessary to understand the technology from the ground up.**
- **Be ready to change or discard when technology advances.**



International Telecommunication Standards

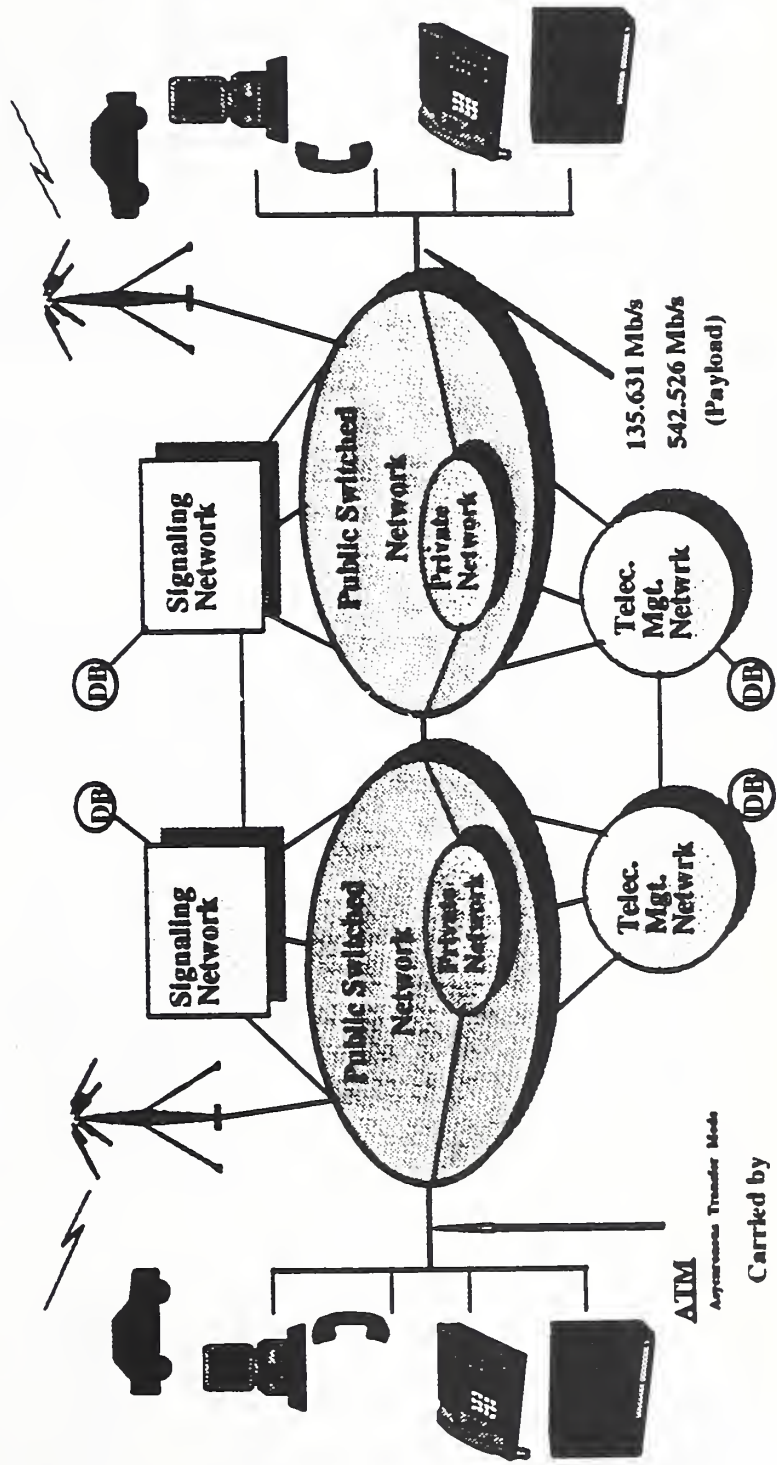
Advantages of Standardized Equipment

- **Equipment meeting international standards is (much) less expensive than non-standard equipment.**
- **New standard systems will be cheaper to maintain, because of automated testing, etc.**
- **New standard protocols contain many features that can usually satisfy user requirements, if properly applied.**



International Telecommunication Standards

Emerging Telecommunication Infrastructure





International Telecommunication Standards

Our Major Technology Areas and Related Committees

Technology Area	Federal	ANSI	CCITT
Wireless	FTSC, Wireless Services Program; OMNCS	T1P1, TR45.3	CCIR Study Group 8
Intelligent Networks	FTSC; OMNCS	T1M1	Study Groups IV, XI, XVIII
Signaling	FTSC; OMNCS	T1S1	Study Group XI
Security	FTSC	X3T5.7, X3T2, T1M1	Study Groups VII, XV
Broadband ISDN	FTSC; OMNCS	T1S1	Study Group XVIII
ATM	FTSC; OMNCS	T1S1	Study Groups XV, XVIII
SONET	FTSC; OMNCS	T1S1, T1E1, T1X1	Study Groups XV, XVIII
Facsimile, Video	FTSC; OMNCS	T1A1, TIA TR29	Study Groups VIII
Network Management	FTSC; OMNCS	T1M1, T1S1, X3T5.4	Study Groups IV, XVIII, XI
Building Wiring, Grounding	FTSC, Fiber Optics Subcommittee; OMNCS	TIA 41, National Electric Code	

TALKING POINTS

ON

"INTERNATIONAL STANDARDS: MEDICAL DEVICES - FDA'S PERSPECTIVE"

BY PHILIP B. WHITE

FDA'S REGULATION OF MEDICAL DEVICES

SOME PEOPLE MAY NOT BE AWARE THAT THE FOOD AND DRUG ADMINISTRATION REGULATES MEDICAL DEVICES - IN ADDITION TO FOOD AND DRUGS.

IN FACT - AN ENTIRE CENTER, THE CENTER FOR DEVICES AND RADIOLOGICAL HEALTH, LOCATED WITHIN FDA, IS CHARGED WITH REGULATING MEDICAL DEVICES FOR HUMAN USE AND ASSURING THEIR SAFETY AND EFFECTIVENESS - MANDATED BY 1976 MEDICAL DEVICE AMENDMENTS TO THE FEDERAL FOOD, DRUG AND COSMETIC ACT.

EXAMPLES OF DEVICES: SURGICAL INSTRUMENTS, CONTACT LENSES, HEART VALVES AND PACEMAKERS, BREAST IMPLANTS, CONTRACEPTIVE DEVICES (INCLUDING CONDOMS), IN VITRO DIAGNOSTIC TEST KITS, X-RAY EQUIPMENT AND EVEN TONGUE DEPRESSERS, AND MANY MORE.

FOR PRESENTATION AT THE INTERGOVERNMENTAL US - RUSSIAN BUSINESS DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP MEETING, MARCH 23, 1993, GAITHERSBURG, MARYLAND BY PHILIP B. WHITE, DIRECTOR OF STANDARDS AND REGULATIONS, CENTER FOR DEVICES AND RADIOLOGICAL HEALTH, U.S. FOOD AND DRUG ADMINISTRATION. THE MEETING WAS HOSTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST).

GLOBAL ECONOMY

THE U.S. MEDICAL DEVICE INDUSTRY IS AN IMPORTANT PART OF THE GLOBAL ECONOMY AND PROVIDES A SIGNIFICANT POSITIVE TRADE BALANCE.

INDUSTRY IS STRIVING TO MAINTAIN THE SIGNIFICANT POSITIVE TRADE BALANCE IT NOW HOLDS.

STANDARDIZATION IS KEY TO UNLOCKING MARKETS AND A FACILITATOR OF FREE FLOW OF TRADE FROM ALL CORNERS OF THE GLOBE.

SMDA

ENACTMENT OF THE SAFE MEDICAL DEVICES ACT OF 1990 (SMDA) BROADENED OUR SCOPE

- SMDA CREATED A LEGAL MANDATE
- TO PURSUE THE HARMONIZATION OF REGULATORY REQUIREMENTS
- TO FACILITATE TRADE IN MEDICAL DEVICES BY ENCOURAGING
- MUTUAL RECOGNITION AGREEMENTS WITH OTHER COUNTRIES

AS A CONSEQUENCE OF THE SMDA, WITHIN THE CENTER FOR DEVICES AND RADIOLOGICAL HEALTH (CDRH) THE INTERNATIONAL RELATIONS AND EXTERNAL AFFAIRS STAFF WAS ESTABLISHED AS A COMPONENT OF THE OFFICE OF STANDARDS AND REGULATIONS, WHICH I DIRECT.

U.S. FOOD AND DRUG ADMINISTRATION'S HARMONIZATION PRIORITIES FOR MEDICAL DEVICES

- 1) TO ENCOURAGE THE DEVELOPMENT AND UTILIZATION OF HARMONIZED INTERNATIONAL MEDICAL DEVICE STANDARDS, ESPECIALLY GMPs AND OTHER REGULATORY REQUIREMENTS

INCLUDING THOSE RELATED TO PRODUCT EVALUATION.

2) NEGOTIATIONS FOR MUTUAL RECOGNITION AGREEMENTS (MRA) OR MEMORANDA OF UNDERSTANDING (MOU) THAT WILL FACILITATE TRADE, CONSERVE BOTH GOVERNMENT AND INDUSTRIAL RESOURCES AND PROMOTE GLOBAL HEALTH.

3) INVOLVEMENT IN THE VOLUNTARY STANDARDS DEVELOPMENT PROCESS, BOTH DOMESTIC AND INTERNATIONAL, ESPECIALLY REGARDING QUALITY ASSURANCE SYSTEMS.

4) TO ENCOURAGE GLOBAL COMMUNICATION AND COOPERATION IN ORDER TO ADDRESS PUBLIC HEALTH ISSUES RELATED TO MEDICAL DEVICES.

MRAS/NEGOTIATIONS

- INVOLVED IN TRADE DISCUSSIONS (TO MINIMIZE TRADE BARRIERS)

WORK WITH DEPARTMENTS OF COMMERCE, STATE, AND U.S. TRADE REPRESENTATIVE ON

- GENERAL AGREEMENT ON TARIFF AND TRADE (GATT)
- TECHNICAL BARRIERS TO TRADE (TBT)

NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA) -- U.S., CANADA, MEXICO

- DIALOGUE WITH FOREIGN COUNTERPARTS

- FORMAL BILATERAL DISCUSSIONS BETWEEN U.S. AND MEXICO
- REGULARLY SCHEDULED TRIPARTITE MEETINGS (CANADA, U.K., U.S.)

- PRELIMINARY DISCUSSIONS WHICH COULD LEAD TO MRA
 - CANADA (GLOVES - AND DISCUSSIONS UNDER THE U.S./CANADA FREE TRADE AGREEMENT)
 - MALAYSIA (LATEX GOODS)
 - AUSTRALIA (GMP - PREMARKET APPROVAL). (AGREEMENT ON EXCHANGE OF INFORMATION - ALREADY FINALIZED).
 - SWITZERLAND (GMP)
 - JAPAN (GMP)
- EUROPEAN COMMUNITY (EC NEGOTIATIONS)
 - FORMAL BILATERAL DISCUSSIONS BETWEEN U.S. & EC
 - INTERESTED IN NEGOTIATION OF MRAS WITH THE EC
 - FIRST PRIORITY - GMP AREA - A GOOD PRACTICAL EXAMPLE THAT WILL HAVE INTERNATIONAL IMPACT.

INTERNATIONAL STANDARDS

CDRH WAS HEAVILY INVOLVED IN INTERNATIONAL HARMONIZATION AND INTERNATIONAL STANDARDS WELL BEFORE THE SMDA WAS ENACTED. STANDARDS ARE THE CORNERSTONE OF NEGOTIATIONS TO ENCOURAGE GLOBAL COMMUNICATION AND COOPERATION TOWARD PUBLIC HEALTH ISSUES.

- CAN BE USED FOR REGULATORY PURPOSES AND PROVIDE THE

TECHNICAL BASIS FOR FUTURE DISCUSSIONS. .

- EVEN IF REGULATORY REQUIREMENTS DIFFER COMPLIANCE WITH INTERNATIONAL STANDARDS (SUCH AS GMP) COULD BE PREREQUISITE FOR MRA.

- CURRENT INTERNATIONAL STANDARDS DEVELOPMENT PROJECTS
 - 377 STANDARDS EFFORTS OF WHICH 93 ARE INTERNATIONAL PROJECTS UNDER DEVELOPMENT BY 8 ORGANIZATIONS

- PRIORITY - HORIZONTAL STANDARDS

HARMONIZATION EFFORTS WITH THE EC - GMP

- A. GLOBAL HARMONIZATION TASK FORCE ESTABLISHED SEPTEMBER 1992, NICE, FRANCE (U.S.; EC, JAPAN, AND CANADA - INDUSTRY/GOVERNMENT)

- B. GOAL TO WORK TOWARD DEVELOPMENT OF AN INTERNATIONAL QUALITY SYSTEMS STANDARD FOR MEDICAL DEVICES
 - COMMON GUIDANCE DOCUMENTS
 - PROGRAMS FOR JOINT INSPECTIONS
 - FURTHER INFORMATION EXCHANGE

- C. FIRST MEETING JANUARY 18, 1993 IN BRUSSELS

- D. THREE STUDY GROUPS ESTABLISHED
 - 1. COMPARISON OF REGULATORY SCHEMES - TO COMPARE ALL ASPECTS OF THE PRODUCT APPROVAL PROCESS OF THE U.S., JAPAN, CANADA AND THE EC

2. HARMONIZATION OF THE FDA GMP AND EN 46001 - TO ALIGN AS CLOSELY AS POSSIBLE THESE TWO DOCUMENTS
3. GUIDANCE DOCUMENTS - TO REVIEW ALL EXISTING AND DRAFT GUIDANCE DOCUMENTS RELATIVE TO QUALITY SYSTEMS FOR MANUFACTURERS AND INSPECTORS OF MEDICAL DEVICES AND HARMONIZE INTO ONE GENERAL GUIDANCE DOCUMENT.

SPECIFIC STANDARDS

A. ISO 9001

FDA IS PARTICULARLY INTERESTED IN THE ISO STANDARD FOR QUALITY ASSURANCE SYSTEMS - THE ISO 9000 SERIES (U.S. TERM--GMP)

- ISO 9000 IS THE BASIS FOR AUDITING QUALITY SYSTEMS IN MANY COUNTRIES

-- THE EC WILL BE USING

-- THE MODEL FOR CANADIAN GMP

IMPORTANT - COMMON QUALITY SYSTEMS APPROACH FOR MEDICAL DEVICES (ISO 9000 SERIES)

- EFFORTS UNDER WAY (THROUGH ANSI) TO ESTABLISH A **NEW** ISO TECHNICAL COMMITTEE FOR MEDICAL DEVICES SUPPORTED BY AAMI AND HIMA

- ACCEPTANCE OF THE ISO 9000 SERIES OF QUALITY SYSTEM STANDARDS IS KEY (PROVIDES TECHNICAL BASIS FOR FUTURE TALKS WITH RESPECT TO MUTUAL RECOGNITION OF OUR REQUIREMENTS)

MAJOR DIFFERENCE - ISO 9001 INCLUDES DESIGN CONTROL

- ADDITION OF DESIGN CONTROLS TO OUR GMP WILL HARMONIZE OUR REGULATORY REQUIREMENTS WITH THE INTERNATIONAL STANDARD
- CURRENTLY REVISING THE FDA GMP REGULATION SO THAT IT WILL BE EQUIVALENT TO ISO 9001 (NOT ADOPTING VERBATIM)
- ISO 9001 COMPLIANCE DOES NOT EQUAL COMPLIANCE WITH FDA GMPS - U.S. MORE DETAILED WITH RESPECT TO COMPLAINT FILES AND FAILURE INVESTIGATION

B. IEC/FDA

- ACTIVITIES ARE UNDER WAY WITHIN FDA AND IEC TO BRIDGE THE GAP BETWEEN SEVERAL EXISTING FDA STANDARDS (DEVELOPED UNDER THE RADIATION CONTROL FOR HEALTH AND SAFETY ACT OF 1968) AND EXISTING IEC STANDARDS.
 - X-RAY EQUIPMENT
 - LASERS
- PARTICIPATION IN THE DEVELOPMENT AND REVISION OF IEC 601-1
 - THIS STANDARD COVERS MOST ASPECTS OF SAFETY ASSOCIATED WITH ALL ELECTROMEDICAL DEVICES INCLUDING:
 - ELECTROMAGNETIC COMPATIBILITY (EMC)
 - ELECTROSTATIC DISCHARGE (ESD)

- FDA MAY CONSIDER GRANTING RECOGNITION AND USING IN FDA RECOMMENDATIONS OR GUIDELINES, IN ORDER TO ENCOURAGE ITS USE BY INDUSTRY.
- PROSPECTS OF HAVING IEC 601-1 ADOPTED AS AN AMERICAN NATIONAL STANDARD THROUGH ANSI APPEAR GOOD.

C. RECENTLY ESTABLISHED SECRETARIAT OF THE TECHNICAL COMMITTEE IN THE FIELD OF STERILIZATION OF HEALTHCARE PRODUCTS (TC 198) ALLOCATED TO AAMI (U.S.A.) AND CHAIRED BY AN FDA SCIENTIST, DR. VIRGINIA CHAMBERLAIN

HARMONIZED STANDARDS AND REQUIREMENTS - ARE IN EVERYONE'S BEST INTEREST

- SAVES INSPECTIONAL RESOURCES
- CAN SPEED APPROVAL PROCESS

BUT - SIGNIFICANT PROBLEMS FOR ACHIEVING PROGRESS: POSSIBLE ROADBLOCKS AHEAD IN ACHIEVING INTERNATIONAL HARMONIZATION WITHOUT COMPROMISING FDA'S PUBLIC HEALTH RESPONSIBILITIES OF CONGRESSIONAL MANDATES:

- A. MANY COUNTRIES HAVE NO REQUIREMENTS FOR MEDICAL DEVICES.
- B. EVEN IN COUNTRIES THAT HAVE REGULATORY REQUIREMENTS FOR DEVICES, THEY MAY NOT BE THE SAME AS, OR AS COMPREHENSIVE AS, FDA'S. FOR EXAMPLE, PREMARKET APPROVAL MAY NOT BE REQUIRED FOR THE SAME DEVICES OR, WHERE THERE ARE APPROVAL REQUIREMENTS ONLY SAFETY AND

NOT EFFECTIVENESS CONCERNS, ARE ADDRESSED.

- C. RISK MANAGEMENT PHILOSOPHIES OF OTHER COUNTRIES MAY DIFFER DEPENDING ON THEIR PUBLIC HEALTH REQUIREMENTS.
- D. OTHER COUNTRIES MAY HAVE DIFFERENT POLITICAL, SOCIAL, OR ECONOMIC PHILOSOPHIES THAT WOULD CONFLICT WITH OUR PUBLIC HEALTH PHILOSOPHY.

RUSSIA

SPEAKING OF OTHER COUNTRIES, RUSSIA, FOR EXAMPLE, REGULATES MEDICAL DEVICES VERY DIFFERENTLY THAN WE DO. AS RUSSIA MOVES TOWARD A MARKET ECONOMY, IT IS INTERESTED IN RECEIVING TECHNICAL ASSISTANCE ON HOW TO REGULATE DEVICES AND OTHER PRODUCTS (DRUGS, FOODS, VACCINES) THAT THE FDA REGULATES. THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (AID) HAS AGREED TO FUND A "WORKSHOP ON REGULATORY CONTROL AGENCIES" TO BE PRESENTED BY FDA IN MOSCOW IN MAY OF THIS YEAR. THIS WORKSHOP WILL BE FOR NATIONAL AND LOCAL GOVERNMENT OFFICIALS FROM RUSSIA AND THE OTHER NEWLY INDEPENDENT STATES (NIS). LES WEINSTEIN OF MY STAFF WILL LECTURE ON DEVICES AT THIS WORKSHOP. HE IS HERE TODAY AND WILL BE AVAILABLE TO ANSWER QUESTIONS ON THIS.

CONCLUSION

I WILL CLOSE WITH THIS THOUGHT -- GET INVOLVED IN THE PROCESS. BECAUSE MANY INTERNATIONAL STANDARDS WILL BECOME THE FOUNDATION FOR NATIONAL REGULATIONS OR QUASI-REGULATIONS, IT IS ESSENTIAL FOR ANY INDUSTRY, OR FOR ANY GOVERNMENT, WITH INTERNATIONAL GOALS, TO CONSIDER AND INCORPORATE INTERNATIONAL STANDARDS INTO ITS STRATEGY AND OVERALL PROGRAM.

THE UNITED STATES AND EUROPEAN COMMUNITY: TRENDS IN INTERNATIONAL STANDARDIZATION

Charles M. Ludolph, Director
Office of European Community Affairs
U.S. International Trade Administration

STANDARDS AND TRADE WITH THE EC

In 1992, the United States exported \$100 billion to the EC and imported almost as much from there. Even though only 7.8% of overall U.S. business activity involves international business, exporting has greatly increased from only 5.5% OF U.S. GDP five years ago. Almost 25% of our foreign business involves the European Community, so what is happening in the European Community is of more than casual interest. With the European Community, as perhaps with no other region in the world, product standards are key to international trade. We estimate that more than \$70 billion of our exports must have some kind of EC technical product certification, usually to a European Community product standard, in order to market in Europe. In addition, very soon, no less than \$20 billion of our exports to the EC will be expected to be produced in a plant under an ISO 9000 registration.

It is a commonplace that standards and certification facilitates trade. Product designs that satisfy customers are embodied in standards. Product tests and process audits prove a seller meets a buyers needs. But it is more and more apparent that the United States and the European Community are approaching product standards and certification in very different ways. More separates the U.S. exporter from Europe than just the metric system. In a recent survey of U.S. and EC government product certification programs half as many sectors in the United States relied on third party approvals than in the European Community. This means that some U.S. exporters that typically rely on self-certification are at a disadvantage in Europe because they have little experience with third party certification systems.

Similarly, the European Community relies on officially sanctioned technical bodies for conformity assessment and standards development while the United States has few if any public or private national accreditation systems. Only seven of the forty-five U.S. ISO 9000 registrars practicing in the United States are accredited in the United States. Again, this difference between U.S. practice and European expectations has a very significant effect on the competitiveness of U.S. companies in international trade. Both the United States and the European Community seek to develop standards that have wide international acceptance. European countries and the United States have markedly increased their activities in the ISO and IEC for example. At the same time, however, only 5% of the German standards are adopted directly from the ISO while more than 50 % of their standards work has been transferred to the European regional standards bodies CEN and CENELEC.

Europe then is a challenge to U.S. business which requires various levels of response. I would like to spend a few minutes sharing what is happening in Europe, how the U.S. responds and suggest some areas where Russian and U.S. efforts can help our mutual business interests.

WHAT IS HAPPENING IN THE EC?

By now the rough outline of what the European Community is doing in standards, testing and certification is well known. EC member states are no longer able to promulgate national laws and standards dealing with health, safety and environment without submitting to prior approval from the European Community that their proposals do not interfere with the EC market. For the most part if a product is deemed legally safe for use in one EC member state, than that product should be deemed fit (the principle of mutual recognition) for use anywhere in the EC. And finally any product shown to comply with harmonized EC-wide safety standards or requirements has free circulation. These three principles unify the EC market.

These three principles give rise to EC standards prepared by ETSI, CEN and CENELEC replacing national standards. They give rise to the "CE mark" replacing national safety marks. They give rise to "notified bodies" replacing government approvals. They give rise to a preference for EC standards used for the government regulation of safety and health and for EC government procurement in the utilities sector rather than relying on the technical specifications of "national champions."

These three principles, however, also had unexpected effects that Europe is only just beginning to reckon with in 1993.

The demand for over one thousand EC product safety standards in a period of 4-6 years to meet government needs drew resources away from much needed international and private sector standards projects. In fact, the EC is paying CEN/CENELEC/ETSI \$75 million for these standards and recently declared that work completed by non-CEN standardizers will not affect this payment.

Regional, *a priori* government requirements frequently diverge from international standards positions.

Mutual recognition reduces the demand for testing previously conducted at the national level. Labs, test houses, certifiers, quality auditors must cope with the restructuring inherent in a rationalized market.

Lack of confidence in non-national certifiers gives rise to new demands in calibration, tougher criteria for accreditation, a new emphasis on quality systems.

An EC mandate for the CE product mark does not, in itself, build confidence among national producers and consumers. New voluntary certification systems will spring up at the national level to satisfy specific national quality needs where the old national safety certification systems were terminated.

Standards are a mirror of the marketplace for which they are developed. The termination of the legal national standards requirements opens the possibility for producers and consumers to build a single market. However, the imposition of new transnational requirements potentially ignores the strong national character of Europeans. The success of the EC single market in the 1990s depends on the confidence that Europeans find in the EC system rather than reintroducing another layer of national preferences where once national safety requirements existed. There is no clear forecast as to whether, in all her diversity, the European user of standards and conformity assessment will arrive.

HOW HAS THE EC WORKED WITH INTERNATIONAL STANDARDS?

In early 1989 the EC Commission became aware that their international trading partners needed to be integrated into their regional system. At first the options were not well developed. However, the dialogue has increased as can be seen by the policies that admit international standards.

For example in 1991, the European Community Commission, stated in its Green Paper on EC Standards that "where possible, the Community should have recourse to international standards rather than devise standards at the regional level... And could include use of current international standardization work in areas where new standards are requested of CEN or CENELEC for EEC product legislation so long as conditions are met. This opening was very significant in dealing with the EC initiatives in product safety standardization. Also about this time European standardization bodies went further by stating that any individual or organization from any third country can submit proposals and comments through their national member body of the ISO/IEC. They will be taken into consideration for the ongoing work. In important cases, the chairman may decide to convene a meeting between a few experts from the responsible body and representatives of the proposer."

Since the articulation of these principles United States manufacturers have participated in the development of product standards which ultimately are to be used in Europe in medical devices, machine safety, lawn mowers, telecommunications, and computers as well as other sectors.

Interest in product standards are not limited to product safety. Europeans are also elaborating standards to be used in public procurement for telecommunications, electrical generation, and other utilities. In this case, standards of "European currency" are being developed also by CEN and CENELEC because the new EC law on public procurement of utilities includes the obligation that "if a European standard relevant to the need of the purchasing entity is available, then the entity has the obligation to refer to that European standard."

However, European policymakers further state that if there is no European standard relevant to the need of the purchaser than 'other standards having currency in the Community' should as far as possible be used in this specification. This opens considerable opportunity for non-EC products since many European sector rely on widely available world standards as well as international standards. However, as for the national standards of a non-Community country widely used internationally and within the Community, insofar as these standards have been developed in coordination with a recognized standardization body, they would also fall into the category of 'standards having currency'.

There is considerable latitude for EC markets to incorporate standards positions that are international in scope. The obligation remains, however, that the international standard or standards position be reflect the specific regulatory needs of the EC safety laws and that the candidate standards positions be developed reflecting a consensus process and be as widely accepted as possible.

U.S. INITIATIVES

From 1989, the U.S. government, manufacturers and private standards societies undertook numerous initiatives to integrate the new regional EC standards initiatives into the world economy. Much of the work culminated in a one-of-a-kind, far-reaching bilateral study undertaken by U.S. and EC standards experts for their respective governments. It is important to note that standards professionals and manufacturers were unanimous on the role of standards that support the growing international character of the marketplace.

Making international standards, in all their forms, timely and effective means to conduct business was the priority for the Study Group. I will only summarize one of the many important recommendations of that report here. It was a common theme of both the U.S. and the EC reports that timely information is key to the facilitation of international standards. Better international information means redundant initiatives can be merged or terminated. Interested parties can be more fully engaged. Needed standards development can be accelerated. Improved exchanges of information between the United States and the EC remains a hallmark of private sector standards and industry bodies and the governments. The exchange over the last few years has expanded, continues to be expanded and should be nurtured.

The European Community initiatives in conformity assessment presents an institutional challenge to the United States. The challenge is positive. Conformity assessment in the United States is essentially decentralized, the European Community is increasingly hierarchical. In Europe, governments are expected to design conformity assessment, in the United States manufacturer's self-certification to consensus standards is more typical. The challenge is to bridge the two systems to facilitate trade and at the same time avoid disrupting the integrity of conformity assessment that reflects the confidence of the users. User confidence internationally can be supported through both private and public sector initiatives. In 1993, the NIST is completing rule-making that would make available a national voluntary conformity assessment recognition system that corresponds to the U.S. exporters need for a credible government-based accreditation system. Similarly, this U.S. government initiative helps to support other private sector accreditation initiatives.

Mutual recognition and establishment of equivalence is an even more complex goal developed by the United States and the European Community for supporting our international trade interests.

In addition to what is already underway with Europe, the U.S. needs look at further initiatives. U.S. exporters need a technical assistance program for quality certification, like ISO 9000. U.S. exporters need the U.S. government to reduce the burden of required export certifications on regulated exports like food products and generic drugs. The U.S. government should seek to make U.S. and foreign testing requirements compatible or equivalent so that one global product certificate is all that is necessary to export anywhere. We must find the means to bridge the gap between technical standardization and meeting regulatory requirements. This is difficult even within a country but more so between differing national regulatory regimes.

CONCLUSION: AREAS OF RUSSIAN-U.S. COOPERATION

The United States' standards needs and priorities, and I assume Russia's, are different than that of the European Community. While the EC focusses on developing a product standards and certification system that meets internal harmonization priorities, the United States and Russia shares an emphasis on integrating national systems with international business.

The shared focus is on international harmonization and recognition. Where Europe has found the ISO 9000 quality standard as key to their need for a cross-border procurement "ticket." U.S. and Russian priorities in quality systems are to raise overall product quality rather than document it.

Working with the European Community is a priority in international business in the 1990's but our commitment to international trade means that international standards priorities will dominate U.S. and Russian initiatives and I propose that the initial work of this working group should consider the means by which greater U.S. and Russian business participation in international trade can be supported by cooperation and harmonization of standards, testing and certification.

There are specific areas where it would be useful for NIST and GOST to be considering bilateral cooperation in order to enhance market access to the European Community which at the same time promotes wider trade interests.

In closing, then, I offer a short list of initiatives I can recommend for consideration by the Russia-United States Standards Working Group that point to improved technical and commercial relations with the European Community.

1. The NIST and GOST should define the criteria for improved mutual recognition of calibration results of testing services for exporters to world markets, particularly the EC and should establish a calibration services accreditation program to facilitate trade. Such an effort would run in parallel to Europe's WECC initiative and the U.S.-Canada-Mexico initiative on metrology alluded to be Mr. Donaldson.
2. The NIST and GOST should jointly identify standards initiatives where government is the substantial consumer such as computer software testing procedures, measurement and enforcement of environmental objectives, and civilian government procurement, and establish joint projects for to harmonize requirements that would facilitate trade between Russia and the United States and also with the European Community.
3. The NIST and GOST should jointly consult on criteria being used to develop their national accreditation systems for quality systems registrations and lab testing with a view to facilitating mutual recognition.
4. The NIST and GOST should provide a bilateral forum for their respective regulatory agencies to discuss opportunities for harmonizing product approval criteria based on market place requirements.

Russian and U.S. trade and standards relations with the European Community cannot be narrowly bilateral nor should it be driven solely by immediate concerns over access. As I noted the EC market and its use of standards and conformity assessment is changing. The EC, as a whole, is relying more on third party conformity assessment than ever before as a condition of sale. The single EC market has increased demands for private and public accreditation systems for product approvals.

The demand for EC government safety and procurement standards has placed a new kind of demand on private standards bodies that has yet to be adequately confronted. Technical standards are not yet completely accepted by regulators. These problems may be unique to the EC but they certainly deserve our attention given the importance of the EC market to U.S. and Russian business. I encourage this working group and your respective private sector standards experts to consider these issues.

The North American Free Trade Agreement

John L. Donaldson, Chief
Standards Code and Information Program
Office of Standards Services

The North American Free Trade Agreement--NAFTA--represents a commitment by Canada, Mexico, and the United States to eliminate barriers to trade among the three countries. Begun in June 1991, negotiation of the agreement was completed a year later in August 1992. The Chief Executives of the three countries signed the agreement in December 1992. Final ratification by the United States will be achieved with legislative approval by the Congress. Similar actions are required in Canada and Mexico.

The agreement is in eight parts. (See illustration #1.) The eight parts are in turn divided into 22 chapters; the shortest parts - three, four, and six - consist of single chapters, and the longest parts - two and five - consist of six chapters. (See illustrations #2 and #3.) Key chapters in part two are Rules of Origin, Customs Procedures, Energy, and Agriculture. Key chapters in part five are Investment, Services, Telecommunications, Finances, and Competition. Most of the remaining chapters deal with either administrative or special matters. Chapter 9 on Standards-Related Measures is the subject of this paper.

The NAFTA standards chapter provides a framework that ensures that access provided for elsewhere in the NAFTA, especially in the tariffs and market access chapter, will not be subsequently denied due to technical barriers such as labelling and testing requirements. Compatible standards and testing procedures are building blocks in efforts to integrate the United States, Mexican and Canadian economies.

The chapter applies to all standards affecting trade in goods and some services. Since virtually all goods are traded, the scope of the chapter is extensive. The chapter builds upon, and improves, existing international disciplines. The GATT Technical Barriers to Trade (TBT) Code, one of the Tokyo Round Codes, is the central international agreement in the standards area. The NAFTA incorporates all of the existing Code disciplines, since all three NAFTA Parties are signatories of the Code and must abide by these obligations in any case. In addition, the NAFTA has incorporated many of the proposed changes to the TBT Code that have been negotiated in the course of the Uruguay Round negotiations that have not yet been adopted by all GATT signatories. This will ensure that NAFTA will also be in compliance with a new TBT Code.

#1 NAFTA - Eight Parts

1. General Part
2. Trade In Goods
3. Technical Barriers to Trade
4. Government Procurement
5. Investment, Services and Related Matters
6. Intellectual Property
7. Administrative and Institutional Provisions
8. Other Provisions

#2 Part Two - Trade In Goods

Chapters 3-8

National Treatment and Market Access
Rules of Origin
Customs Procedures
Energy and Basic Petrochemicals
Agriculture and Related Measures
Emergency Action

#3 Part Five - Investment, Services and Related Matters

Chapters 11-16

Investment
Trade in Services
Telecommunications
Financial Services
Competition Policy
Temporary Entry

The key provision of the standards chapter is that standards-related measures may not constitute an unnecessary obstacle to trade. To achieve this end, the chapter has extensive transparency and notification requirements. In developing a standard, a Party must provide public notice to interested parties in all three NAFTA countries at the same time. Interested parties must be provided access to the development process on a non-discriminatory basis. When a draft standard is complete, it must be published, and at least a 60-day comment period provided. Comments must be considered when preparing a final text. After publication of the final regulation, the governments must allow adequate time for companies to adapt production to the new regulation before going forward with implementation. Governments must establish inquiry points that can answer all questions regarding standards-related measures, and must make copies of all measures available.

Including the key information provision, Chapter 9 consists of the 15 articles shown in illustration #4. The harmonization articles on notification and the inquiry point comprise the openness provision of the chapter. Other important articles are on international standards, on compatibility, and on conformity assessment. (See illustration #5 for brief description of content.) These articles are directed at harmonization of standards and acceptance of conformity assessment procedures so that products made and approved in one country will be accepted in the other two countries. Two articles on cooperation address efforts by the three countries to effect the desired harmonization. (See illustration #6 for a summary of their content.) These articles deal with cooperation and the establishment of a tri-lateral committee to assure such cooperation.

The Committee on Standards-Related Measures is to provide a focal point for implementation of this chapter of the agreement. The Committee is to serve several functions: monitoring implementation, facilitating the processes whereby harmonization occurs, providing a forum for consultation on issues, and enhancing cooperation. The standards of the three countries are different; the processes for producing the standards differ from country to country; three different languages are involved; and the reliance on international standards differs. The Committee will be expected to overcome all these differences as it provides a means for achieving the standards related objectives of the NAFTA.

NIST has already undertaken some cooperative activities now being developed among the three countries. The activities involve calibration and metrology. The National Center for Metrology of Mexico, the National Research Council of Canada, and NIST are pursuing the creation of "NORAMET", a regional collaboration in measurement standards and specialized measurement services in North America. NORAMET, when operational, would provide for joint metrological projects, sharing of major facilities, and

#4 Standards-Related Measures

Articles 901-915

Scope
Extent
Existing Obligations
Basic Rights
International Standards
Compatibility
Risk Assessment
Conformity Assessment
Notification
Inquiry Point
Technical Cooperation
Information Limits
Committee on SRMs
Technical Consultations
Definitions

#5 Harmonization Articles

- 905 International Standards - Shall use international standards, but may set higher levels of standards.
- 906 Compatibility - Work jointly to make SRMs compatible. Make "best effort" with respect to sub-national level and private sector.
- 908 Conformity Assessment - Work to make systems compatible; treat the goods of others no less favorably; consider agreements between conformity assessment bodies.

#6 Cooperation Articles

- 911 Technical Cooperation - Shall provide technical advice, information, and assistance, on request, as well as information on such activities with others; standards bodies should be encouraged to cooperate.
- 913 Committee on SRMs - government representatives to work together to implement agreement and set-up working groups to deal with specific problems.

optimizing the use of limited resources. The same agencies, joined by the Standards Council of Canada and the Mexican Directorate General for Normalization, are also pursuing the creation of "NACC", the North American Calibration Co-operation. NACC will promote the development of an infrastructure that will lead to mutual recognition of the calibration accreditation programs of the three countries. The tri-lateral discussions of NORAMET and NACC are proceeding and provide a constructive precedent for what may follow adoption of the NAFTA by the three countries. We at NIST believe that agreements on measurement technology and calibration are fundamental prerequisite to any future harmonization effort and are endeavoring to have our mechanisms in place so that the standards harmonization process can truly get underway when given the green light by our policy makers.

North American Free Trade Agreement

NAFTA

Negotiations begun in June 1991

Negotiations ended in August 1992

Executive Approvals in December 1992

Legislative Approvals in ? 1993 ?

NAFTA

An Agreement in Eight Parts

General Part

Trade In Goods

Technical Barriers to Trade

Government Procurement

Investment, Services and Related Matters

Intellectual Property

Administrative and Institutional Provisions

Other Provisions

**Part Two
Trade in Goods**

Six Chapters

National Treatment and Market Access

Rules of Origin

Customs Procedures

Energy and Basic Petrochemicals

Agriculture and Related Measures

Emergency Action

Part Five
Investment, Services & Related Matters

Six Chapters

Investment

Trade in Services

Telecommunications

Financial Services

Competition Policy

Temporary Entry

Standards-Related Measures Fifteen Articles

Scope

Extent

Existing Obligations

Basic Rights

International Standards

Compatibility

Risk Assessment

**Conformity
Assessment**

Notification

Inquiry Point

Technical Cooperation

Information Limits

Committee on SRMs

**Technical
Consultations**

Definitions

Key Articles

Notification - Have formal process for notice of developing and proposed actions.

Inquiry Point - Provide information on SRMs and availability of documents.

Important Articles

International Standards - Use international standards; may set higher levels.

Compatibility - Work jointly to make SRMs compatible with "best effort" for sub-national level and private sector.

Conformity Assessment - Make systems compatible; treat goods of others no less favorably; form agreements between conformity assessment bodies.

Cooperation Articles

Technical Cooperation - Provide technical advice, information, and assistance, on request, as well as information on such activities with others; standards bodies should be encouraged to cooperate.

Committee on SRMs - government representatives to work together to implement agreement and set-up working groups to deal with specific problems.

NIST Activities
Memoranda of Understanding
Canada, Mexico, and USA

NORAMET - North American Metrology

NACC - North American Calibration Co-operative

Fundamental to Standards Harmonization Process

RECENT DEVELOPMENTS IN LATIN AMERICAN STANDARDIZATION AND METROLOGY

George A. Sinnott
March 23, 1993

The behavior of the standards and metrology institutions of a country are an expression of the economic policies of that country so it is not surprising that we find that the recent changes in economic policies in the Latin American countries are having a major effect on the standards and metrology institutions throughout the region. Let me then begin with a few general remarks about economic trends in Latin America.

I am using the broad definition of "Latin America" as indicated in Figure 1, that is, South America, Central America, the Caribbean, and Mexico. Latin America consists almost entirely of middle income countries. The annual gross domestic product (GDP) per person for Latin America as a whole currently is about \$2600. However, Latin America is a large and diverse region and there are considerable differences from country to country with the GDP ranging from a low of \$246 per person per year in Haiti to over \$10,000 in the Bahamas. Also these average figures hide widespread poverty. Latin American economies are characterized by extremes of wealth and poverty among individuals. For example, the income of the top 20% in Brazil is 26 times the income of the bottom 20%.

Figure 2 indicates the relative size of the GDP by country. Argentina, Brazil, Venezuela, and Mexico account for 77% of all of Latin America's Gross Domestic Product. Brazil alone accounts for 38%.

Over the years many Latin American countries have alternated between highly market oriented economies to ones with a strong presence of the central government with large state owned enterprises. The trend now is very much towards market oriented economies with a switch from emphasis on import substitution with its protected industries towards more open export oriented economies. Money losing state owned enterprises are being sold and protectionist trade barriers are being lowered. Argentina, Chile, Colombia, Mexico, and Venezuela are the leading countries in this reform movement. After a period of economic stagnation during the 80s, much of Latin America is now experiencing an economic recovery.

A second trend is the emergence of regional trade groups which are indicated in figure 3. For our purposes Mexico is treated as a region and accounts for about 21% of Latin America's GDP. CARICOM has 13 members from the Caribbean region which together with the 5 countries of Central America account for 6% of Latin America's GDP.

The Andean Group consists of Bolivia, Colombia, Ecuador, Peru, and Venezuela. A free trade pact between Bolivia, Colombia, and Venezuela became effective at the end of 1991 with Ecuador joining the following June. Peru is currently beset with internal instability. The Andean Group produces about 19% of Latin America's GDP.

MERCOSUR came into being in October 1991 as a result of a treaty between Argentina, Brazil, Paraguay, and Uruguay. A series of scheduled tariff reductions should result in the elimination of tariffs between these four countries by the end of 1994. The group will maintain common external tariffs. Although Brazil is the dominant economy of this subregion, its government is beset with scandal and an uncertain economic policy. Brazil continues to experience relative economic stagnation. Argentina has been aggressively pursuing economic reform and is experiencing stronger growth. The MERCOSUR group account for half of Latin America's GDP.

During these changing economic times many countries of the region are taking fresh looks at their standards and metrology. They are assessing them now more in terms of a support function for their industry rather than as a government regulatory function.

In Mexico the Dirección General de Normas (DGN) is in charge of the preparation and publication of standards and of the certification of testing laboratories and goods. DGN is a government agency receiving 100% of its revenues from the government and dates from 1943, a time when Mexico was adopting a more centralized and protected economy. Mexico is currently undertaking an internal study of the role of DGN. We expect that DGN will be reorganized in the near future to an organization that assigns more responsibility to the private sector for the development of standards. We expect that the future changes in DGN will be an interesting example of a country adapting its government standards operation to more market oriented and international trade oriented policies.

Also, Mexico has determined that improved metrology support is important to the development of its industry and is now establishing a new national metrology laboratory (CENAM) in Queretaro, north of Mexico City. The National Research Council in Canada, NIST, and the director of CENAM are organizing future collaborative activities under an umbrella agreement that we refer to as NORAMET, in analogy to EUROMET in Europe.

Chile is somewhat of a special case. It has not joined either the Andean group or the MERCOSUR. Chile signed a free trade agreement with Mexico in September 1991 and is discussing future free trade agreements with the United States and Japan. Chile has been among the leaders in pursuing policies that support an open market economy and maintaining the necessary basic financial stability. In the late 1970s Chile dispersed the functions of its national metrology laboratory among universities and other institutions but is now reconsidering this arrangement. It is studying the national metrology needs with a view to reestablishing a national metrology laboratory to support its industry.

The countries in the Southern Cone have long established institutions of voluntary private sector standardization. In Brazil the Associação Brasileira de Normas Técnicas (ABNT) is a private non-profit government chartered standards writing body and is a member of the government's National Council which is the governing body for standardization. ABNT receives 16% of its revenues from the government.

In Argentina the Instituto Argentino de Racionalización de Materiales (IRAM) is a private non-profit government chartered body whose function is the development and publication of standards. A government Council of Standardization approves IRAM standards to be used as Argentine voluntary or mandatory standards. IRAM receives 10% of its revenues from the government.

A standards and metrology subgroup of MERCOSUR meets every three months. This group will coordinate the regions standards and metrology development as the common market forms over the next few years. Similar regional standards and metrology entities are developing in the other regions of Latin America.

The Panamerican Standards Commission (COPANT) was established in the 70s with the purpose of promoting technical standardization in the countries of the American continent. It is made up of representatives from American hemisphere countries or regions. A country's representative to COPANT is usually the same as the country's representative to the International Standards Organization (ISO). The U.S. representative to COPANT is the American National Standards Institute.

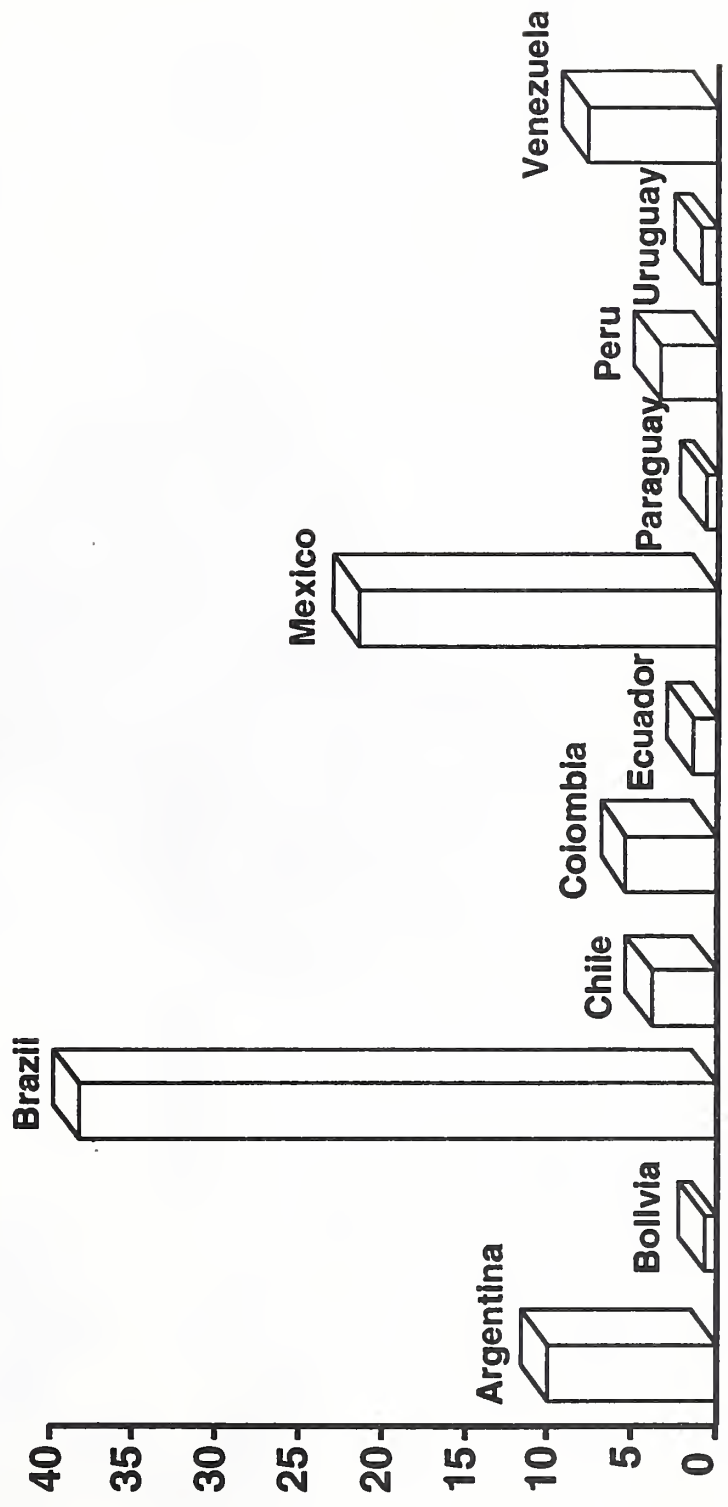
This figure 4 from the Inter-American Development Bank shows the pattern of manufactures exports from the various Latin American subregions. Only about a quarter of Latin American exports of manufactured products is to other Latin American countries. Third parties, particularly the United States receive most of the region's manufactured exports. This global nature of the trading patterns for Latin America has resulted in ISO being the dominant forum rather than COPANT for private sector negotiations on international standardization.

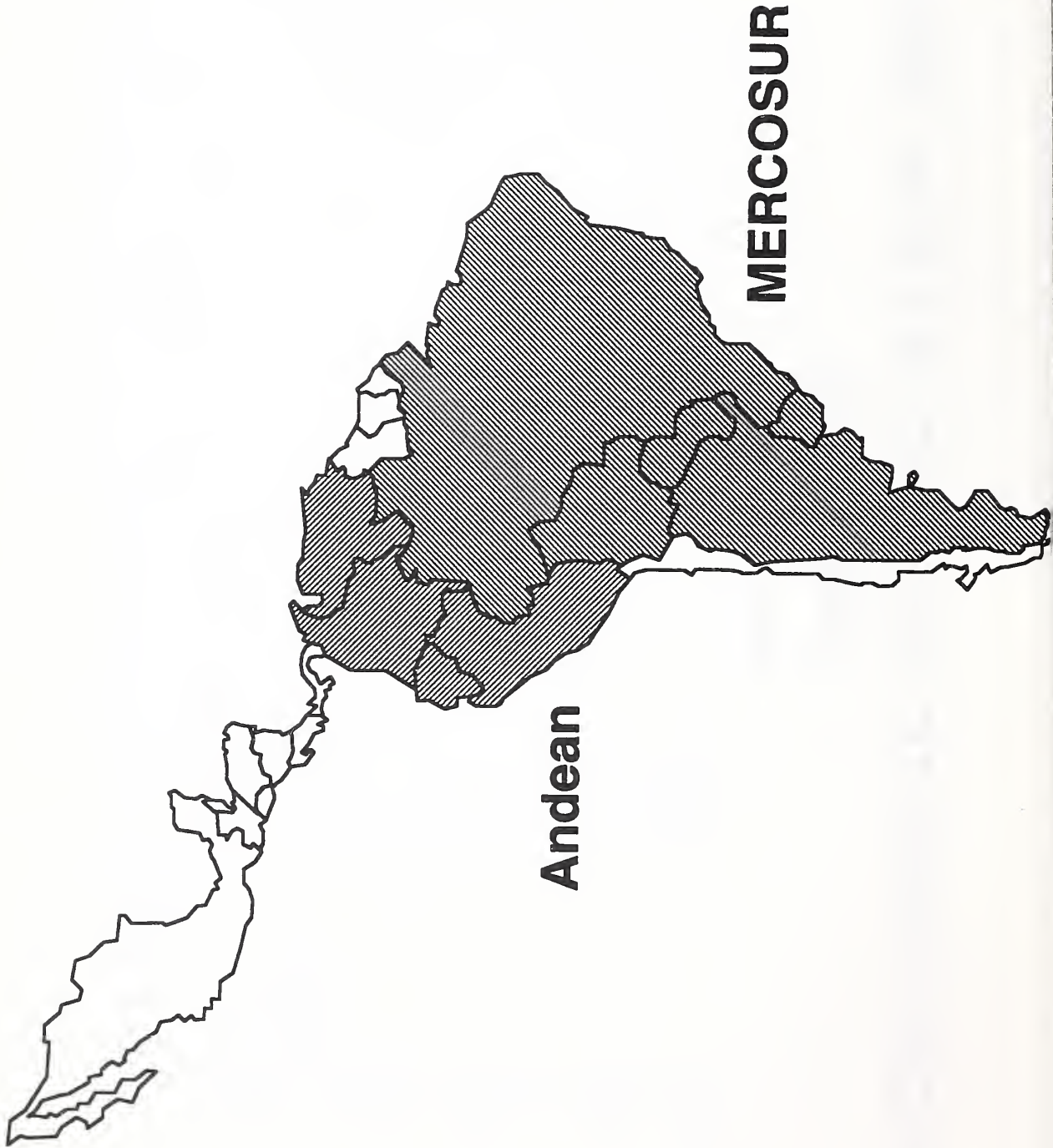
The trend towards market economies throughout the region is causing more emphasis to be placed on the private voluntary sector of standardization. Also, these governments are placing a higher value on their national metrology institutions. They regard these institutions as providing an important service to their industries. The Latin America regional organization of national metrology institutions, The Sistema Interamericano de Metrologia (SIM), was established in 1974 with the assistance of NIST's predecessor, NBS, USAID, and the Organization of American States. This organization became relatively dormant in the 80s but is now being reinvigorated along with the national organizations. It is too early to tell how far this reinvigoration of SIM will go but, who knows, possibly some day we may see it evolve into an Americas wide "AMERIMET".



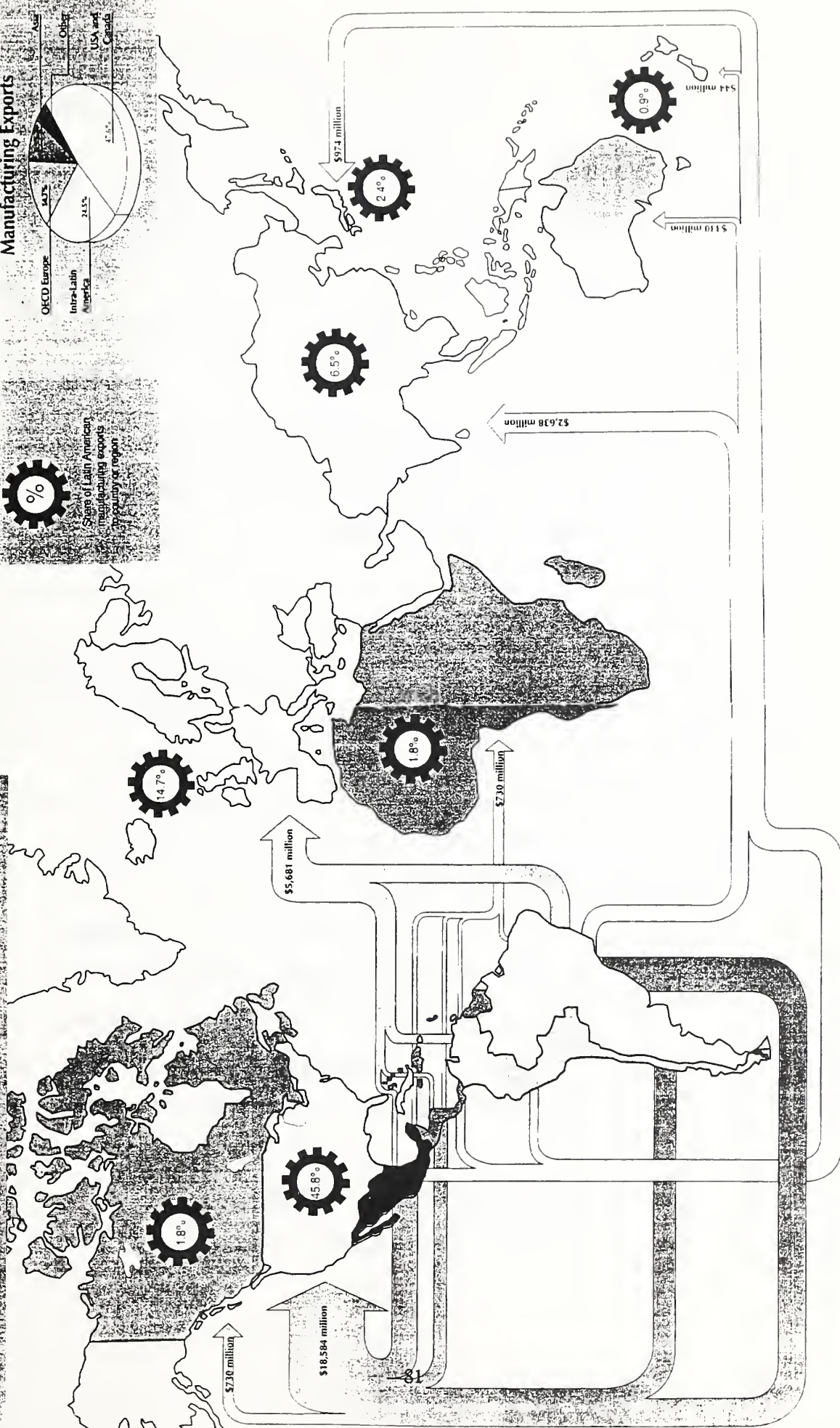
GROSS DOMESTIC PRODUCT IN LATIN AMERICA (1990-1991)

Percentages





Destination of Latin America's Manufacturing Exports



Distribution of Latin America's Manufacturing Exports



%
Share of Latin American manufacturing exports by country or region

Paper by S.F. Bezverkhy
President of Gosstandart of Russia
for the meeting of the Working Group
on Standardization of the Inter-
governmental Russian-American
Committee for promoting business
contacts

March __, 1993

BUILDING UP STANDARDIZATION AND CERTIFICATION
SYSTEM IN THE RUSSIAN FEDERATION WHEN CHANGING
OVER TO MARKET ECONOMY

Dear ladies and gentlemen, colleagues!

First of all allow me to express my gratitude for a chance of addressing you and describing the work on standardization, metrology and certification currently under way in Russia. We are using new approaches in this work. They ought to promote the transition to market economy, the economic sovereignty and entry of Russia into world economy.

The government control over standardization is exercised by the Committee of the Russian Federation for Standardization, Metrology and Certification (Gosstandart of Russia). The Committee was set up by the Decree of the President of the Russian Federation. The Committee statute was approved by the Government (Slide 1).

Major functions of the Gosstandart of Russia include (Slide 2):

- formulating and implementing the government policy in standardization, certification and metrology;

- running standardization, certification and metrology schemes, harmonizing them with international, regional and foreign national schemes;

- providing traceability of measurements in the country;

- organizing for product certification;

- exercising public supervision over standardization, certification and metrology projects;

- representing Russia in international and regional organizations for standardization and metrology.

The Gosstandart of Russia has a great scientific and production potential. In its subordination are:

- a number of research institutes;

- research-and-production groups;

- standardization and metrology centers;

- educational institutions;

- publisher and printing house.

In its operations the Gosstandart relies on industrial research organizations, large and small factories, testing centers.

As you know, some radical changes are now taking place in Russia.

These changes feature:

- construction of the modern legal state based on advanced international experience;

- democratization of all social institutions, i.e. trade unions, parties, scientific and engineering societies, movements, etc;

- cardinal enlargement of rights and self-sufficiency
of companies;

- widening of free enterprise.

Those features were built into three Acts of the Russian Federation;

- Act of Standardization.

- Act of Product and Service Certification.

- Act of Traceability of Measurements.

These Acts incorporate the experience of countries with developed market economies. They will form the foundation for the Russian technical legislation.

The above Acts have a common philosophy and are based on the following major principles.

First. Manufacturers and entrepreneurs have acquired new economic rights and freedoms but are not yet totally aware of their social liability before the society for quality of products and services, for their safety to the environment, human life and health. Unfortunately, we are now witnessing some negative consequences of the above.

In all socially-oriented nations of the world the issues of safety, legal protection of the public against unfair business, environmental pollution are put in the forefront and are given high priority.

These priorities are apparent and near to us. Our new approaches consist in preventing infringements of the law through adopting and implementing the technical legislation. At the same time, producers of goods and services are freed of petty tutelage and superfluous regimentation of technical

requirements for that does not contradict the law of manufacturers and entrepreneurship.

Therefore the above three Acts stipulate:

- a compromise between mandatory requirements of the Russian national standards and guidelines that might become mandatory solely by voluntary agreement of customers and producers;

- a combination of mandatory and voluntary certification of goods and services;

- a combination of mandatory government verification and voluntary calibration of measuring instruments.

Second. Harmonization of all rules and procedures of standardization, mandatory certification and mandatory government verification of measuring instruments with similar rules and procedures used by most countries of the world.

Third. Where appropriate, we have made a radical transition from administrative bans and requirements to economic levers and incentives.

After having spelled out the general philosophy, allow me to elaborate on certain specific aspects.

NEW PUBLIC TECHNICAL POLICY IN STANDARDIZATION

Primary emphasis in standards will be placed on:

- safety of products, services and processes to the environment, human life and health;

- technical and information compatibility as well as product interchangeability;

- quality of products, services and processes;

- saving of all types of resources;

- security of entities subject to a risk of natural and technology-generated disasters to occur.

In Russia normative documents for standardization comprise the documents of the second management levels (Slide 3):

- federal level, i.e. state (national) standards of the Russian Federation; international and regional standards; federal classifiers of technical and economic information;

- industrial level, i.e. standards of companies, concerns, associations; standards of technological and engineering societies.

National standards will be and are already written by technical committees for standardization open to all parties concerned including product developers, manufacturers, customers, inspectorates.

The requirements of normative documents for standardization are to be based on the current state of the art, international and/or regional standards as well as to allow for advanced national standards of other countries.

Among mandatory requirements of national standards are those that provide:

- safety of products, services and processes;
- compatibility and interchangeability of products;
- uniformity of procedures to control mandatory requirements;

uniformity of marking for goods.

Other provisions of national standards are of recommendatory nature and applicable on the basis of voluntary agreement, arrangements, contracts.

The compliance of products with all requirements of the Russian national standards as declared by producers may be

confirmed by the applicable mark of conformity with the national standards. We would like to be introduced to a similar practice in the USA. Public, municipal and private companies will develop their own standards to meet the above standardization objectives and to improve production engineering and management.

Standards of technological and engineering societies will be drafted with a view to making prompt use of new research project results.

By summarizing the above principles of the new public technical policy in standardization, it is safe to say that Russia is coming close to market economy standards.

Of vital importance for the Russian economy is the country's involvement in international and regional standards organizations. Russia has actively taken over in ISO, IEC, UN ECE. At the 15th PASC Meeting Russia was granted membership.

We think it would be useful if Russia like the USA joined GATT (General Agreement on Tariffs and Trade). Russia joining the GATT Standards Code might be the first practical step to becoming a GATT member. We have already started the relevant preparatory work. In particular, we are introducing a procedure of keeping GATT member countries amply informed about draft national standards being developed in Russia.

NEW PUBLIC TECHNICAL POLICY IN CERTIFICATION

I would like to enlarge on the subject of certification. It was introduced in the Russian Federation since January 1, 1993 and is of the utmost significance for stabilizing the Russian economy.

Certification of products and services is common to most countries of the world and has proved to be an effective tool of regulating relations between those involved in production and distribution, customers and the society.

Mandatory certification is primarily intended to prevent production and sale of products and services hazardous to the environment, human life and health. It aids the customers in making a competent choice of products and services and creates more favourable conditions for manufacturers' involvement in international economic and technological cooperation.

Today the Russian economy mostly lacks competition among producers, features monopolism of major manufacturing companies, a shortage of raw materials and supplies, an increase in private commerce. In this environment the initiation of mandatory certification of products and services is both progressive and extremely imperative.

Mandatory certification of products in the Russian Federation dates back to April 1992 when the Supreme Soviet of Russia passed the Consumer Protection Law. This Law stipulates that a producer (vendor) has no right to market goods and services without a certificate that confirms their conformity with legal or standards requirements.

This Law also stipulates that the Gosstandart of Russia is the national certification body in the Russian Federation (Slide 4).

For the past period the Gosstandart of Russia has prepared normative documents for the GOST R Federal Certification System. A range of goods (processes, services) subject to mandatory certification has been specified.

Our certification system is totally consistent with the principles and mechanisms outlined in ISO/IEC international documents.

Under the GOST R Federal Certification System 11 certification schemes for homogeneous products have been devised and approved by the Gosstandart of Russia. These schemes allow for specifics of products. Among them the following schemes can be named:

- certification scheme for motor vehicles and trailers (based on UN ECE Rules);
- certification scheme for electrical equipment (based on IECEE standards);
- certification scheme for small arms and cartridges (based on the Brussels Convention);
- certification scheme for diamond powders and tools;
- certification scheme for foodstuff and food raw materials;
- certification scheme for toys, and others.

So far we have approved 10 central certification bodies, accredited 140 certification bodies for specific products and 209 testing laboratories (centers) including:

- 47 for testing engineering products;
- 48 for testing electrical appliances, electronic components and instruments;
- 62 for testing raw materials and supplies;
- 18 for testing food products;
- 13 for testing products of light industry.

Certainly, it is just a starting point in establishing a network of certification bodies and testing laboratories (centers).

Production of food and agricultural products as well as production of services are universal in occurrence. Therefore the Gosstandart of Russia has charged its standardization and metrology centers with certifying these products and services. There are 100 bodies of this sort throughout Russia.

In doing so they will be responsible for government control and supervision over the observance of the specified product and service certification rules in their territories.

I would like to dwell on safety of products imported to Russia. As decreed by the Government of Russia, the State Customs Committee and the Gosstandart of Russia have established the importation procedure for goods whose safety must necessarily be verified. This procedure extends to goods being the subject of trading or barter with foreign countries. It is designed both for juridical and real persons importing goods to the Russian Federation. This procedure is also intended to be used by organizations that exercise control over the safety of those goods when imported.

As from January 1, 1993 the operation of Russian custom-houses is based on a list of goods subject to mandatory certification in 1993. This list has been compiled around the commodity line codes for external economic activity.

The Gosstandart of Russia has engaged its standardization and metrology centers to examine the safety of imported goods. They will closely cooperate with the Russian customs offices,

deal with practical problems that may occur in importation.

The Ministry of External Economic Relations of the Russian Federation has forwarded to all overseas trade representatives of Russia, its authorized agents in Russia as well as to trade representatives of foreign countries and foreign companies accredited in Russia information on the control procedure over safety of goods when imported to Russia introduced as from January 1, 1993.

The purpose is to make sure that safety requirements imposed on imports are included in contracts and agreements as well as shipping documents.

The implementation and promotion of product and service certification in Russia would be unfeasible without Russia being deeply involved in international cooperation in certification projects. What are the benefits?

Firstly, we draw on extensive experience of international, regional and national organizations for product testing and certification.

Secondly, the transition to mutual recognition of test results and certificates of conformity in the context of international (regional and bilateral) arrangements produces a major economic benefit for all parties concerned.

The Gosstandart of Russia represents the country's national interests in international certification organizations and schemes wherein the Russian Federation is a member.

They include:

- The International Electrotechnical Commission and IECEE and IECQ CB Schemes.

- The UN Economic Commission for Europe (Road Vehicles and Equipment Approval Scheme).

- The Small Arms Certification Scheme.

The Gosstandart of Russia deems it appropriate that Russia also joins the following international certification schemes:

- The Agreement between the members of the International Union of Railways (for cars, rolling stock).

- The Agreement within the European Federation of Chemical Engineering.

- The Agreement within the International Association for Textile Care Labelling.

As to mutual recognition of test results, the Gosstandart of Russia is preparing relevant draft agreements with national organizations like DIN in Germany, AFNOR in France, BSI in Great Britain, SFS in Finland, Quality Inspectorate in China.

A few words about voluntary certification.

The Russian Federation will also practise voluntary certification. Major conditions for and rules of voluntary certification are stipulated in the Act of Product and Service Certification.

Voluntary certification will be conducted on the initiative of juridical and real persons and will cover the products that are not subject to mandatory certification. It will be based on the requirements of normative documents for standardization other than those provided by law for mandatory certification.

Voluntary certification can be conducted by the bodies responsible for mandatory certification or other bodies that pre

registered their certification schemes and their marks of conformity with the Gosstandart of Russia.

It should be mentioned that voluntary certification of products will be conducted for compliance with all quality characteristics and parameters specified in normative documents for standardization. This will contribute to higher competitiveness of domestic products in world markets and stabilization of the Russian economy.

The Gosstandart of Russia will not issue any mandatory documents to specify the voluntary certification procedure. We think it appropriate, however, to draw up and promulgate some guidelines in this area for producers and vendors.

The Act of Product and Service Certification adopted by the Supreme Soviet of Russia will promote large-scale certification as a tool of ensuring the safety of products for man and the environment, of controlling the quality of imports and expanding the Russian exports. These actions are ultimately intended to stabilize the Russian economy and make it fit in with the world commodity production system.

I am ready to answer all your questions concerning the current status of and developments in the Russian standardization and certification systems.

We are also keen to meet your experts in standardization, to be introduced to your standardization projects, and to discuss cooperation prospects for the benefit of our nations.

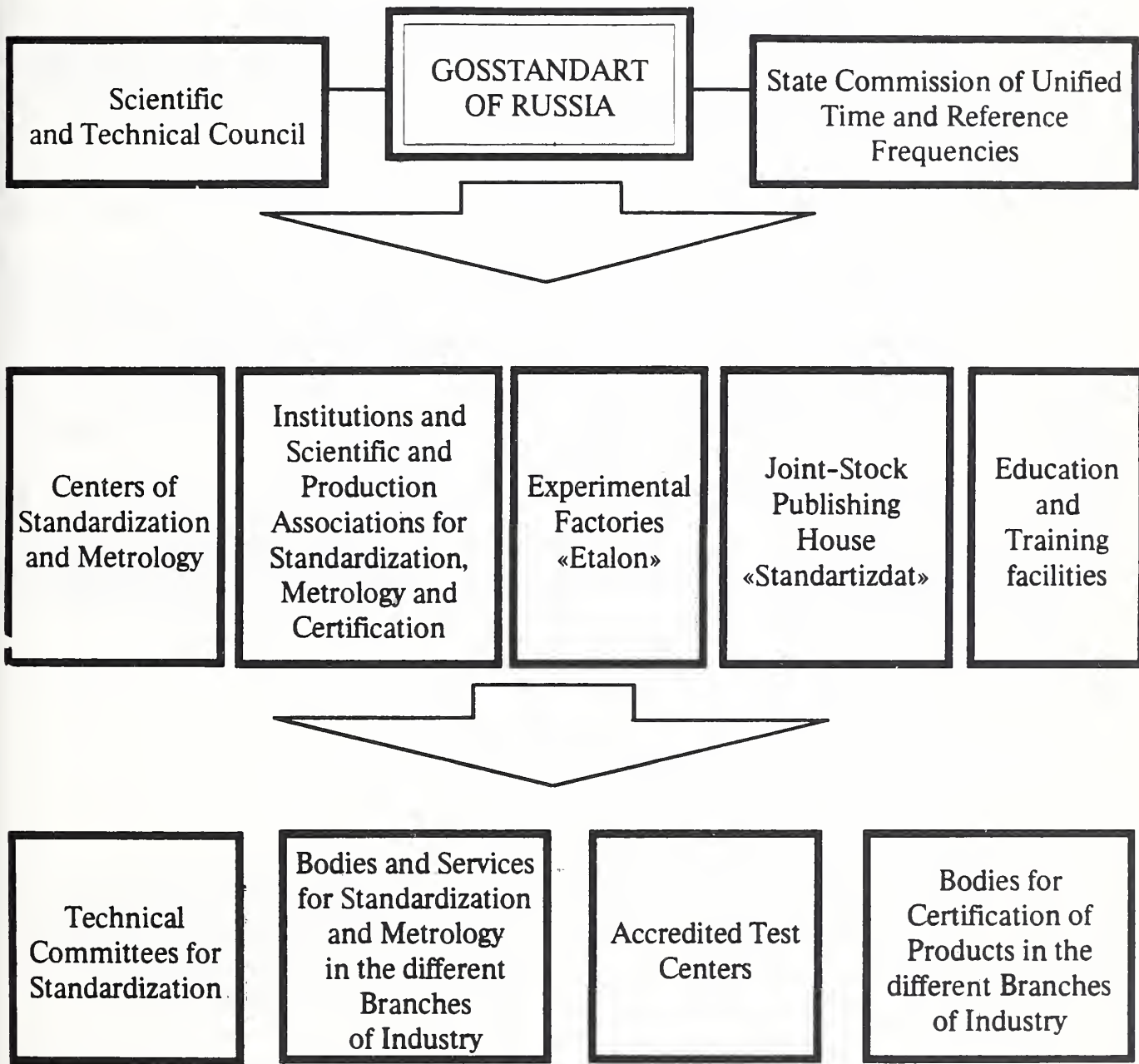
Thank you.

Gosstandart of Russia

is the central body of state management of activities in the field of standardization, metrology and certification

- It forms and pursues state policy in the field of standardization, metrology and certification of products and services
- It develops drafts State Laws of Russia concerning standardization, metrology and certification and exercises control over their fulfillment
- It adopts state standards with mandatory requirements ensuring products safety, human health and the environment protection
- It co-ordinates activities on ensuring measurements unity, approves and keeps state primary standards
- It organizes and co-ordinates Technical Committees for standardization activities
- It organizes activities on certification of products, services and quality systems
- It represents Russian Federation in the International organizations for standardization, metrology and certification.

STRUCTURE OF THE BODIES AND SERVICES FOR STANDARDIZATION, METROLOGY AND CERTIFICATION



FUND OF NORM AND RULES FOR STANDARDIZATION

LEGISLATIVE ACTS
OF RUSSIAN FEDERATION



TWO-LEVEL NORMATIVE BASE FOR STANDARDIZATION

STATE STANDARDS

Standards of technical societies



General technical norms,
control methods and means
of control



Factory standards



Technical norms, production
technologies, control methods
and means of control
for specified production

Gosstandart of Russia

National body for products certification

- Development of basic guiding certification documents
- Accreditation of Certification Bodies, for products and services, Test Laboratories (Centers)
- Organization of certification of manufacturing lines and Quality Systems
- Executing of state inspection over mandatory certification of products and services

ASPECTS OF CERTIFICATION DEVELOPMENT IN RUSSIA

V.N. Otrokhov

Head of the Main Administration for International Cooperation
GOSSTANDART of Russia

In the period of transition to market relations and inclusion of Russia in the orbit of global economic ties, the problem of establishing the national certification system in Russia becomes very acute. Practically every enterprise leading to external markets is faced with the necessity of implementing certification since the absence of effective certificate or quality assurance system makes it difficult to compete with foreign partners nowadays.

The Supreme Soviet of the Russian Federation has adopted a Consumer Protection Law (see Appendix) providing for implementing mandatory certification of domestic and import products, the use of which may cause hazards to human life, health or personal property as well as to environment.

The point of our activities in this field is to establish an effective certification system which can be recognized abroad. At present we are sufficiently informed about certification systems operating in developed countries. However, in these countries certification systems are operating in natural conditions of a market economy, whereas in Russia, a market economy is just about to form. Therefore, taking into account the economic and social conditions of transition period, we consider it important to implement the principles of international certification in this country.

It should be noted that our certification system is not forming out of nothing: it is based on extensive work carried out within the framework of a state product testing system. Our country has joined the UN EEC system for homology of motor-vehicle transport, the certification system for electronic equipment and the IEC certification systems for electrical products. We oversee eleven testing centers that are accredited and authorized to carry out certification within the framework of international systems.

The mechanism of the certification system being developed is characterized by two main factors:

- organization of the system's bodies and rules adopted within the system concerning their activities, i.e., an organizational and legislative aspect of the system;
- certification components (normative [standards] and technical documents, certification testing and production stability), i.e., an organizational and technical aspect of the system.

At present a packet of normative [standards] and methodological documents establishing the structure of certification system, as well as the rules of its activities, has been prepared.

To provide for the recognition of certificates and conformity marks of the GOST R system abroad, its development has been carried out in full conformity with valid international

norms and rules. The system is open to any country to join and to any enterprise and organization to participate in. A mandatory condition to join the system is the recognition and observance of its rules.

The GOST R system has an exclusive right to carry out certification for conformity to national standards. Moreover, certification for conformity to other normative [standards] documents may be carried out within its framework.

First and foremost the GOST R system is intended for conducting mandatory certification based on legislative acts and governmental regulations on human life, health and property protection, environmental protection, labor protection, and the safety of certain products. The system provides for conducting voluntary certification as well.

Within the GOST R system the following activities are carried out:

- product and service certification;
- quality systems and production attestation certification;
- accreditation of bodies for product certification;
- accreditation of bodies for quality systems and production lines attestation certification;
- testing laboratory's accreditation;
- training and attestation of auditors in respect of the above-mentioned spheres of activities.

The GOST R certification system interacts with other systems of safety inspection and certification on the basis of agreements (Seas and Rivers Registers, Avianadzor, Gosatomnadzor, MVD etc.).

Mandatory certification within the GOST R system is carried out for conformity to national standards. In the case of voluntary certification the parties concerned and an applicant have the right to choose any normative [standards] documents on products such as national, international, regional, foreign national standards and so on. The GOST R system takes into consideration the demands of consumers (customers, buyers) including foreign ones.

Product certification within the GOST R system is carried out according to eight schemes classified in ISO documents. Owing to the development of international and regional classification of these schemes, appropriate supplements and amendments may be introduced into the GOST R system.

As to import certification, General Agreement on Tariffs and Trade (GATT) codex of standards provides for the uniform procedure of product certification for conformity to safety requirements specified in national standards both with respect to domestic and imported goods. The safety of the following domestic and import goods should be reaffirmed: foodstuffs; consumer goods, contacting with foodstuffs, potable water, unprotected parts of human body; household products of mechanical and instrument engineering; children's goods; perfumery; cosmetics, as well as chemicals used in everyday life, live-stock farming and plant growing.

The grounds for imports admission to the territory of the Russian Federation is a certificate submitted to customs bodies and issued or recognized by an authorized body.

GOSSTANDART of Russia is entrusted with the function of the National Body for goods certification as well as of their safety control within the limits of its competence and the coordination of this activity in the country.

At present GOSSTANDART has approved a packet of documents prescribing rules and procedures of certification concerning goods safety. Moreover, GOSSTANDART, in cooperation with the State Customs Committee of the Russian Federation, has approved "Provisional Procedure for importing goods to be reaffirmed with respect to their safety, to the territory of the Russian Federation", the date of its implementation being 1 January 1993.

"Provisional Procedure..." covers goods for foreign trade purchase and sale or barter that are subject to mandatory certification, and is intended for juridical and physical persons importing goods to the Russian Federation as well as for organizations supervising the safety of imported goods. The Procedure prescribes that a document reaffirming goods safety should be a certificate of conformity issued according to the results of certification within the GOST Certification System or certificate license issued as a result of foreign certificate recognition by GOSSTANDART of Russia, by a body that certifies products certification, or by any other body authorized by GOSSTANDART of Russia.

The documents specified should be produced and checked at customs before admission of goods. In the case of violating the Provisional Procedure, goods imported should not be admitted to the territory of the Russian Federation. The receiver of goods imported without a document which confirms their safety may apply to a territorial body of GOSSTANDART of Russia or to any other relevant certification body for carrying out certification or approving a foreign certificate within a specified period of customs storing.

Moreover, in accordance with the Provisional Procedure the necessity of import conformity to safety requirements and reaffirmance of this conformity by means of certification should be specified in foreign trade documents such as contracts and agreements.

GOSSTANDART has also established a list of goods subject to mandatory certification.

These are principle problems concerning the matter of establishing and operating the national certification system in the Russian Federation. Some of them have been solved; others are being solved or improved; many problems are still to be solved.

In this connection we consider it extremely important to study and use foreign experience in the field of certification. We are particularly impressed by the basic business principles underlying the activities of competent national certification bodies in the developed countries of Europe, Asia and America. Such principles as voluntariness, openness, participation of all interested parties, consensus and freedom of opinions, orientation to the

modern level of science and engineering development, efficiency of decisions we also try to implement in our practice.

On the other hand, taking into account mutual interest in bilateral imports, quality assurance, and safety of goods, we hope that other countries will not be indifferent to our experience, principles and methods of certification.

That is why GOSSTANDART of Russia exerts considerable efforts in developing international cooperation in the field of certification on the both multilateral and bilateral basis.

As was mentioned above, GOSSTANDART of Russia takes an active part in the work of such international organizations as ISO, IEC, UN EEC and so on. It should be pointed out that cooperation on the multilateral basis is carried out within the framework of the CIS. GOSSTANDART of Russia has signed relevant agreements with the CIS country-members on conducting coordinated policies, principles of carrying out and mutual recognition of certification activities stipulating realization of works on certification based on common organizational and methodical principles through the national certification bodies set up by the governments as well as mutual recognition of certification bodies, testing laboratories, test results, certificates and conformity marks under observance of certain conditions.

Within the framework of bilateral cooperation, mutual studies in certification, as well as works on creating conditions for mutual recognition of test results and certification of mutually supplied products, are mainly carried out at the level of national bodies. Such agreements have been signed with DIN (Germany) and the State Administration of China for inspection of imported and exported goods; similar agreements have been prepared to be signed with France. To solve common problems including mutual testing and certification, joint ventures and technical centers are to be established. The first center was set up in Germany on the basis of the Association in Europe "DIN-GOST-TÜV" and in Southeast Asia on the basis of the Singapore Institute of Standards and Industrial Research (SISIR).

A trilateral agreement on conducting mutually coordinated activities in the Republic of Belaruss, the Russian Federation, and the Ukraine has been signed providing for mutual works on developing certification systems for specific products on the basis of international standards considering national and international systems.

A number of leading foreign testing centers are accredited within the GOST system to conduct certain tests directly in the country of manufacture. On the other hand, several of our testing centers have been accredited within national certification systems of partner-countries. It results in efficient commercial and economic cooperation with these countries.

It should be pointed out that the works on mutual recognition of test results are carried out within GOSSTANDART and its bodies. For instance, "Rostest-Moscow" and "Rostest-Saint Petersburg" successfully cooperate with the German firm "Stiftung-Warrentest" on mutual recognition of test results of refrigerators, washing machines and other household electrical

products, food for children, and so on. The Amur Center for standardization and metrology and Hay-Hay Department for inspection of imports and exports of the State Administration of the People's Republic of China cooperate to provide for the test results recognition as well as the recognition of product certificates issued for the cross-border trading. The All-Russia Scientific Research Institute for Certification (VNIIS) promotes the realization of the Lloyd-Register's services in the field of product and quality systems certification at the CIS companies and cooperates with the Norwegian firm "Det Norske-Veritas" in the field of certification and so on.

Taking into account that the basic scheme of the imported goods certification provides for the manufacture assessment and quality systems certification, VNIIS of GOSSTANDART organizes training of quality auditors in cooperation with such foreign institutions as the German Quality Society and the British Standards Institution. The first group of specialists have already received their diploma.

In conclusion I would like to say that GOSSTANDART of Russia has always appreciated the cooperation with the US bodies.

To promote the test results recognition of mutually supplied products in partner testing centers of one of the sides, these laboratories should be accredited by the other side in accordance with the certification system valid in this country.

The test results recognition with the following issue of the certificates will be fulfilled by one of the sides based on records of the product sample testing issued by the other side's testing laboratory accredited by it.

The laboratories accredited by both sides will carry out products testing for compliance with the national standards of Russia (GOSTs), national standards of the United States, international standards as well as other mutually agreed normative [standards] and technical documents.

The sides will provide for the opportunity of mutually getting acquainted with tests and quality of the products which the proposed cooperation covers and also will take all the necessary measures to diversify and simplify methods for mutual test results recognition and development of mutually coordinated procedures for conducting these works.

In the course of this visit we hope to discuss the draft interaction with American colleagues and put it into action in the near future. Also, we are convinced that our collaboration in the aspects mentioned will be equally effective for the both sides because of mutual interest in cooperation, mutual development, and solving of the problems.

FORMATION OF NEW STATE STANDARDIZATION SYSTEM OF RUSSIA

Report of the meeting of working group on standardization of Russian-American intergovernmental committee for development of business cooperation.

Director of VNIStandart S.A. Podlepa

March, 1993.

Ladies and gentlemen,

In the report of the leader of our delegation professor S. Byezverkhy you have been acquainted with the ideology of developing the Russian standardization system.

The subject of my report is the prime results of work for formation of standardization system in Russia.

The first step after approval of the concept for standardization was to work up and introduce fundamental standards of the state standardization system (standards for standards).

Before acquainting you with prime contents of these documents I would like to tell you about principles which were realized in them.

The first principle.

Development of legislative base.

Standard norms and requirements shall be based on norms of legislative acts. First of all this concerns problems which provide product safety and service for environment, safety of human life, health and property. This is a very actual problem both for Russia and the whole of the world. The legislative work in this direction is started in my country. Acts on "standardization" on "metrology" on "certification" have been worked up.

Draft acts on "saving resources and energy" on "drinking water quality" on "food safety" are prepared. We believe the major duty of professionals in standardization is to create legislative initiative in this field. From our point of view Standards shall bring legislative norms to the level of practical engineering norms and methods. And there were no conformable legislative acts so far standards remain the only means which protects the interests of a state, a society and a citizen.

The second principle — constructive partnership.

We can speak about two trends of this partnership.

The first one realizes through coordination of works in the field of standardization both in Russia and in other states formed in the territory of the USSR. High level of production integration defines the necessity of works on coordinated intergovernmental standards.

The first steps were taken on the initiative of Russia. Positive results are encouraging. A unified standardized space is being formed in the territory the former Soviet Union. Intergovernmental standardization system of regional type fulfils its function.

Governments of 11 states signed the agreement on this problem.

Intergovernmental Council is organized as well as its working body - technical secretariat. Intergovernmental Council held three meetings and took a number of practical decisions.

The base standard GOST 1.0 - 92 is worked out and adopted as well as the plan of intergovernmental standards development for 1993.

The second trend provides the wide wage of international experience in national standardization. (2)

Professor Byezvesky has already noted this in his report. We will try to take better advantages of international experience in our practice in conformity with our conditions and possibilities. We intend to extend significantly the range of direct use of international standards.

We would like to come to an agreement about the possibility and conditions of the usage of national standards of your country as well as other ones with our foreign partners and with you in particular.

For our part, we should create conditions in order to make our specifications to be known and available for foreign commodity producers. Many opportunities of harmonization of our standards with international ones and through them, with national standards are in sight.

The third principle determines the necessary level of continuity in the Russian standardization system of standards and specifications having been worked up before in the Soviet Union.

The experience of scientific and technological achievements of more than one generation of our scientists and researches has been embodied in almost 21 thousand of state standards of the Soviet Union.

Scientific and technical potential of these standards is the national property. These standards are admitted by all the states, having been before the part of the USSR. They may and ought to be used in designing and manufactory of products, scientific researches in the educational system, etc.

We are aware that these standards should be actualized. It is hard work of systematic character. Our partners on international standardization system regard this problem in the same way.

The fourth principle determines the possibility of efficient response on changes in market situation.

For this purpose, obligatory requirements nomenclature is strictly limited in the state standards within the Russian standardization system. As for the proportion of obligation and voluntariness in the use of these standards, it is moved to voluntariness.

The rights of enterprises in working up standards and specifications on their products or rendering services are widely extended.

The organizing barriers are eliminated in order to give the opportunity for enterprises to take initiative in putting the necessary for market products on production lines.

And the last principle is the demonstration of procedures in working out standards.

We want to involve a wide circle of specialists in standards development.

During the procedure of standards development opinions and interests of all the parts concerned should be taken into consideration, I mean, researches, manufacturers, consumers, governmental structures and public associations.

As the international practice has shown, technical committees on standardization are the organizing form of this principal realization. (3) 275 technical committees were established in the Russian Federation, and it should be done much more.

For instance, the structure of national TC is not fully coordinated with TC structure in ISO/IEC. It makes the participation in researches on international standardization to be more complicated.

These are principles which have been realized in the base standards of the state standardization system in the Russian Federation.

The package of five basic national standards was accepted on the 1-st of January 1993
(4)

The main of these standards is GOST R 1.0.92. This document is a "constitution" or the basic law for those, who work in the system of standardization. It determines the main problems and objectives of standardization. Such problems are just with the problems of standardization system in all well-developed countries. (5)

This document determines the main structure and function principles and the main direction of standardization work. All works in national standardization system of Russian Federation are carried out with annual plans. Such plans are being worked out on the base of TC programs and work of enterprises and associations.

First of all it is necessary to work out the standards dealt with the safety of products, persons and surroundings.

The standard, which being worked out on the base of regional and national standards of other countries have priority. Such process ensures the harmonization of our requirements with top standards.

The national standards and the standards of scientific-engineering associations and enterprises are being used in Russian Federation.

The use of information and national standards of other countries by enterprises is possible till the moment of their acceptance as national standards of Russia. Such standards must serve the satisfaction of all consumer demands. These demands or requirements cannot be below those of national standards of Russia.

Gosstandart controls the use of obligatory requirements of national standards. Such control assures with the help of standardization and metrological centers. These centers inform the authorities and public about the results of such control.

GOST RI.2-92 determines the working out of the national standard procedure. This document provides for 5 stages of standard working out : just from planning till products.

On the initial stage of the process the technical committee gives the information about the standard in the special issue of Gosstandart. According to such information all enterprises , businessmen and private persons can make the request for draft standard. Such procedure allows the specialists and scientific and public organizations to discuss the standard.

The technical committee (TC) sends the worked out draft standard to Gosstandart. Before inscribing it into index of standards one of the scientific institutes of Gosstandart must test this document on the conformity to:

- the requirements of legislative acts;
- the operating national standard;
- the metrological norms and standards;
- the terminology and rules of writing.

GOST RI.5-92 is the document which concerns the problems of structure execution and issuance of standards. It determines :

- the structure of standards (succession and arrangement of sections and subsections;
- the common rules of text working, the structure of tables, the preparation of drawing and schedules and so on.
- the amendment requirements;
- the preparation of general requirements;
- the composition of requirements which are to be included into standards;
- the marking requirements of standards.

This standard is in full conformity with Directives (instructions) of IEC/ISO, part 3. It is compiled in such way that any specialist, who doesn't work in standardization, can understand any standard.

The denotation of national Russian Federation standards is "GOST R".

All interstate standards have the former denotation "GOST". It is habitual for the participant of interstate standardization, and all technical documentation contains it.

GOST RI.3-92 and GOST RI. 4-92 determine for enterprises the necessary terms of working out the normative documentation or specifications on products or services.

The main condition is the priority action for legislative acts and national standards. There is a wide sphere of action for realization the creative initiative outside that limits or conditions.

For concrete definition of the main positions in basic standards a number of rules and regulations is being worked out in standardization.

The documents on planning, on setting up the technical committees and the use of international standards are always in the center of attention, they reflect almost all current present-day problems.

So, such is the brief summary of our basic standards.

In conclusion, I want to say a few words about one more trend of our work, which is rather new for us. It is in the creation of products cataloguing system. The creation of such system is provided in the State programme of change-over to international system of statistics and records. This programme was adopted by our Parliament.

The aim of this system is the automatized registration of products being manufactured in different regions and in the whole country, and the provision of authorities and consumers with all necessary information concerning the products, its manufacturers, certifications and standards. It is very important to use such information for the development of national standards.

We know about the Military cataloguing and standardization law in USA. And we also know about the main principles of your system, which is called "Federal Supply Classification of Ministry of Defence items".

We are interested in the adoption of your methods in the working out of our national system of cataloguing (catalogue-making).

We would be very grateful for your assistance in study of Federal cataloguing systems by organizing the training of 3 of 5 our specialists directly in the Center of FSC.

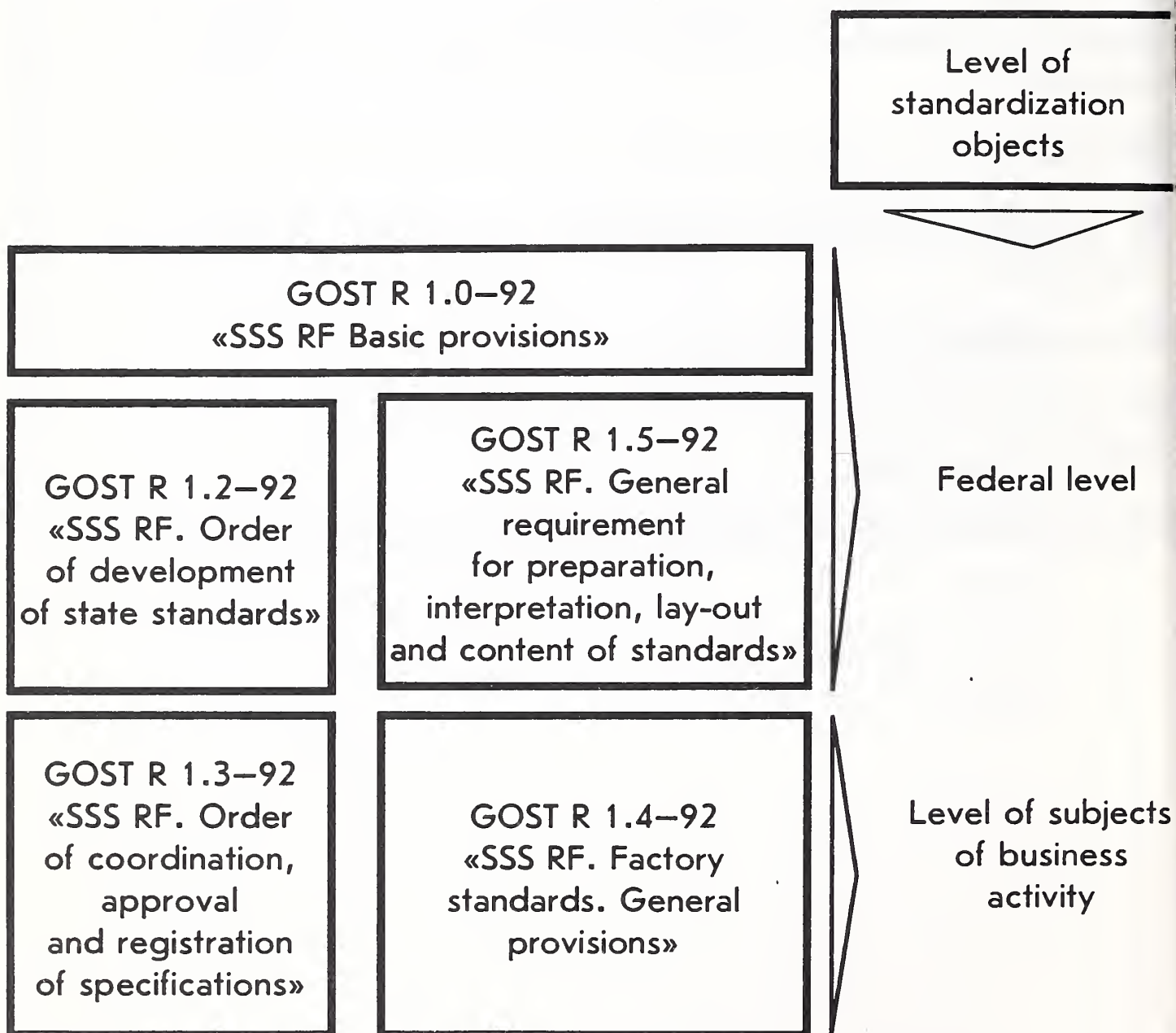
We would be also grateful for the opportunity to study your other works on cataloguing (catalogue-making).

Thank you for your attention.

Gost R 1.0-92 Purposes of standardization

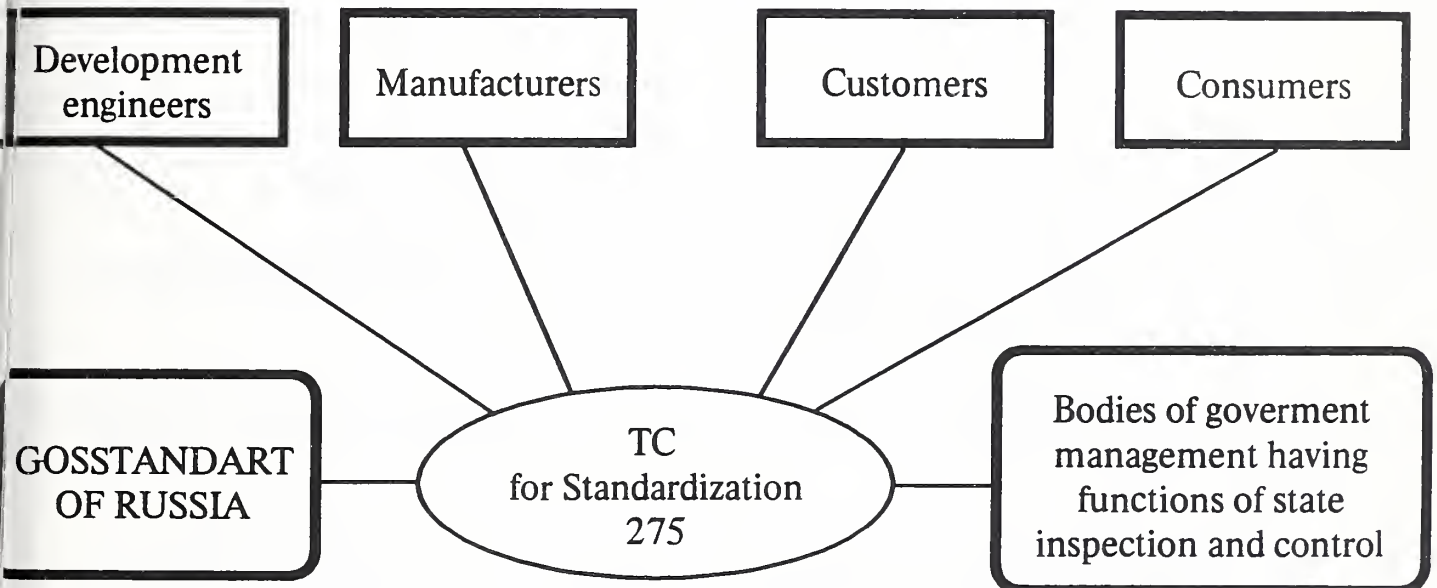
- Setting of complex of requirements for products quality in the interests of consumers including safety of population and the environment
- Escalation of production quality
- Ensuring of production compatibility and interchangeability, unification
- Elimination of technical barriers
- Promotion to saving of resources, reduction of material and energy consumption

**STATE SYSTEM OF STANDARDIZATION
OF RUSSIAN FEDERATION (SSS RF)
(SET OF STATE STANDARDS, GOST R 1. ...)**



4*

TECHNICAL COMMITTEES FOR STANDARDIZATION ARE THE MAIN FORM FOR DEVELOPMENT OF STANDARDS IN RUSSIAN FEDERATION

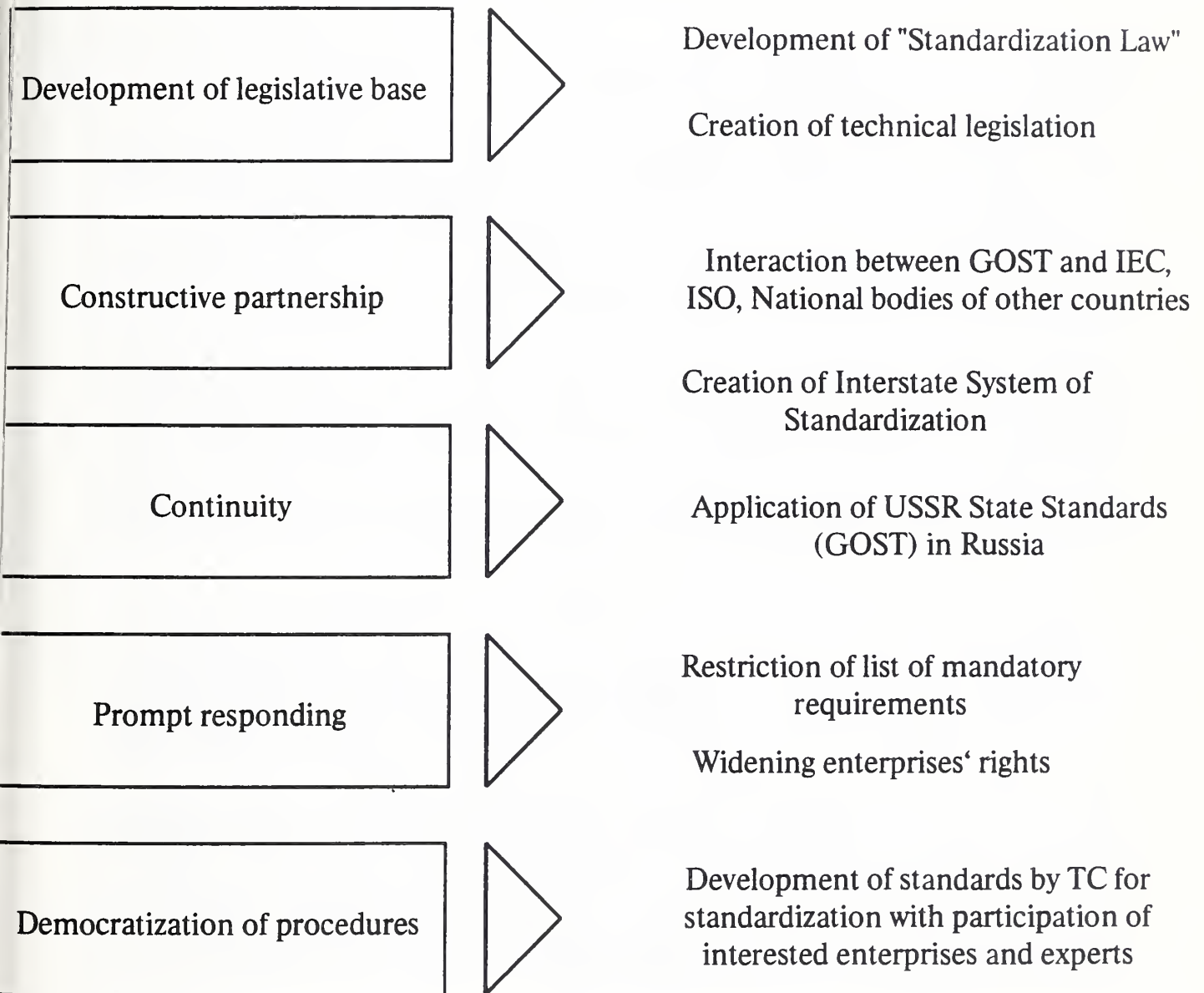


- Democratization of procedures of standards development
- Coordination of interests of all participants of public production
- Complex standardization of interconnected types of products, services and technologies

INTERNATIONAL COOPERATION

- Garmonization of State System of Standardization with international, regional and progressive national standards
- Broadening of direct application of international, regional and progressive national standards
- Normative support of international trade, provision of our country interests
- Development of International Standards on the basis of National scientific and engineering achievements

PRINCIPLES OF STANDARDIZATION SYSTEM



**PRESENTATION TO THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**Dr. Alexander D. Kozlov
Center for the Standardization and Certification
of Raw Materials and Chemicals**

Dear Chairman, Dear Ladies and Gentlemen:

First of all, let me thank the American and Russian organizers of this seminar for giving me an opportunity to come to Washington and speak before such a distinguished audience consisting of our American colleagues in the area of standardization.

We deal with materials in the Center. By materials we mean metals, plastics, construction materials, different raw materials, fuels, oil and gas, and so on.

Our center has four major areas of activities. First of all, standardization of materials is a new area that we have started to work in; second is the safety of material; third is the specification of materials--another area that we started just recently; fourth is the information about the materials--research, development, and testing of raw materials.

This last area is something we have been doing for over 20 years within the framework of the National information service, i.e., standard reference data.

Let me just say a few words about the specific issues that we deal with in order to illustrate some of the principles that were mentioned in the presentation by Prof. Bezverkhy and my other colleagues, concerning the development of standardization and certification, information development practices, and so on in Russia. I want to mention we have 180 people working in our center. By Russian standards, it is a small center.

One of the main areas of our activity is standardization of materials. Together with the industry we develop standards; we review standards and conduct expert examination of standards. Out of 91,000 Gosstandart standards, which is the overall number of standards, our Center is dealing with 9,000: standards for metallurgy, chemistry, raw materials, oil and gas, fuel and power industry, foodstuffs, food processing products and agricultural products, as well as light industry products. This year, for example, we plan to revise 1803 standards to keep them up to date.

As Professor Podlepa mentioned earlier, GOSSTANDART is the body which is responsible for the organization of this work. Our Center is responsible for the work of 156 committees out of a total number of 250 technical committees of GOSSTANDART. Last year, the work of the technical committees, or in other words the work of standardization, was financed out of the budget of GOSSTANDART. That means it was financed by the government. We received money from GOSSTANDART, and we contracted with technical

committees for the work in the area of standardization, 20 million [rubles]. These are last year's prices. You are well aware of the fact that inflation is high in Russia, and it is very hard to predict what this figure is going to be this year. Most likely this work is going to be financed by the government this year as well because private business so far has not started to invest in the area of standardization. Therefore, in order to maintain standardization practices, we have to have at least some governmental support--at least until we establish a private framework.

We cooperate with American organizations in the area of standardization, such as, ASTM and others, within the framework of 67 technical committees of the ISO. So we do have such cooperation. We would like to see assistance on the part of American organizations for further cooperation.

As Professor Bezverkhy has mentioned, we started to review the standards, and we started to include into the standards some of the requirements for the safety of materials. We would like, and I hope that we will receive, some information concerning the safety requirements which are incorporated into the standards in order to harmonize our standards and bring them into conformity with international standards. If they are in conformity, it will be easier to provide acceptance of international standards for safety, for example, and so on.

About two years ago, we started work in the area of material safety. We developed a standard that GOSSTANDART approved called the Safety Passport for the Materials. The "passport" is analogous to material safety data sheets in the U.S. They also are in conformance with the corresponding European document which was adopted and approved by the CEC directive in May 1991.

We hope to implement the system of safety passports in the industry starting next year. We have less than one year to do that and to prepare the industry for the introduction of such passports. You understand that it's a large task, and we will need assistance on the part of American organizations that deal with standardization issues, as well as private organizations and bodies that deal with the development of data sheets.

Actually we have approved the standards for safety passports. It was quite obvious that one standard was not enough. We needed a whole system of standards. We needed a standard. ANSI 400.1 is something with a favorable NSDS. We need a classification, or categorization, of materials in terms of safety. We need to have terminology standards and safety standards. We have to work out a system of standards, and we plan to work out five of them this year in order to introduce the safety passport standards system into our industry.

Since our industry is quite accustomed to the fact that a lot of documents are being implemented, either because they are the directive of the industry or the basis of the law, we suggest that new laws should be proposed in the area of material safety. First of all, we will certainly work on the drafts of these documents, and we will submit them to the Supreme Soviet for review. There is the potential hazardous material safety law, a draft

law, and the material safety passports law, a draft law. We hope that this will help us to implement this safety passport into the industrial framework.

Carrying out this activity, we have consulted OSHA and many other American organizations. We have received the necessary communications and information from these organizations, but we are very well aware of the fact that unless we buy a couple hundred American data sheets, and unless we introduce them in our industry as prototypes, unless we are able to buy a database from the Chemical Abstract Services with a CAS registry number which constitutes several parts of the data sheet, and unless we manage to organize the training of experts who will engage in the development of these industrial data sheets here in the United States and Europe--unless we do all of these--a huge task with which American industry has been probably dealing for over 10 years, success is something that will be beyond our reach. We will not be able to solve it, and that is why I ask the representatives of the American governmental organizations that deal with issues of standardization to consider the possibility of providing assistance to us in the issues of working out a materials safety passport standards system in Russia and to include this kind of work as one of the assistance projects that was mentioned today in the earlier presentations.

As was mentioned earlier in the presentations of my colleagues, after a law in consumer protection had been issued, our Center started working on the certification of materials and industrial products. We analyze and review standards in order to integrate the safety requirements into those standards and in order to include the methods of testing the materials. In some cases we need to establish separate standards for testing. Together with the industrial branches and Institution of Certification of GOSSTANDART we work out the systems of certification for similar products. You have an approximate list here: for example, plastic materials, fuels such as oil and gas, wood and timber, chemical products, and gas products.

While creating such a system, our Center chooses and certifies some of the laboratories which will be in charge of carrying out all tests that are provided for in the standards. We have started to carry out accreditation of about 100 testing laboratories. These are industrial laboratories, the laboratories of the Russian Academy of Sciences, and laboratories of the universities.

What is most important is that over the past two years we have been able to use, for these purposes, highly qualified, very well-equipped laboratories of our huge military and industrial complex.

I can give you an example regarding the certification of chemicals. This system has been worked out by GOSSTANDART together with the Ministry of Science and is going to incorporate about 10 laboratories of this type. One of such laboratories is situated in the premises of an Institute which had been developing chemical weapons for a couple dozen years. Today it deals with the method of destruction of chemical weapons. With the development of the methods for the destruction of chemical weapons, the laboratory is going to test the materials for their biological and hazardous properties. It has very

highly skilled personnel and a lot of highly qualified experts and excellent laboratories that are wonderfully equipped.

This part of conversion in science certainly works for the standardization purposes as well. We also deal with activities that have to do with accreditation of testing laboratories. For example, for the certification of chemical products, we use almost all the materials concerning the methodologies used by ISO and other international standards. We approved all documents that can deal with good laboratory practices and similar requirements. We also provide for the certification of chemicals on the basis of laboratories which I have already mentioned.

What can we do in terms of cooperation with you in the area of certification? First of all we could organize the work on certification within the framework of GOSSTANDART of the materials that are exported to and from the United States, because we are responsible for this kind of work. Secondly, we are interested in the work of the general acceptance of certificates which is carried out at the level of GOSSTANDART and American organizations in the area of certification. We are certainly interested in information of the testing methods, testing for safety of materials, because again we are interested in making our two systems of certification compatible.

The range of materials is extremely wide, and each material is described by a great number of different properties and characteristics. It is impossible to work with materials without dealing with the information about them. Our center has been engaged in the registration since 1984 of the industrial materials on the basis of the standard specifications which are used for their production. On the basis of this work and as a result of this work, we are putting together a national databank, a database on industrial materials.

We are also setting up a similar database on materials which have been worked out but have not undergone testing and have not been in mass production. Those materials have been worked on a basis of patents, scientific research, and so on. The national database in industrial materials covers about 12,000 materials. The databank on new or advanced materials, those that have not been put in mass production yet, covers about 10,000 items.

What can we do for the consumers in the United States? We are ready to provide you with any information concerning the materials that are produced in Russia or which have been developed in Russia in terms of telling you what plant it was produced at, the properties of such materials, so on. In other words, I think that in this respect, our informational services could be of great use either to the industry of the United States or to those organizations of the United States that deal with materials.

Finally, the last area of our activity is the research of materials. Our Center was set up 25 years ago on the basis of research center data. It is a similar center to the departments within NIST. It organizes the research of the testing of materials which are used in our science and industries. About one or two years ago, we had about 250

laboratories that were engaged in the activities of the Center. We carried out the coordination of the activities. We also carried out data certification, and we published the data that has been produced as a result of the certification of data. This is something that is necessary in order to provide, for example, the uniformity of measurements.

On the basis of such research which is being carried out in 250 laboratories, which are the best laboratories of the Academy of Sciences, of the universities, of defense laboratories, of industrial laboratories and so on, we create the databases for the scientific institutions and industrial enterprises.

We have been cooperating with NIST for quite some time so we have a good experience of cooperation. I hope that it is going to evolve even further. What could we do for this organization of the United States which is involved in similar research? By way of using the best laboratories of the former Soviet Union and also because of the horrible inflation in Russia, the wages of a scientific expert is about \$20-30 per month, the salary of a researcher. We could carry out all the necessary research on materials that will be necessary for, or essential for, organizations in the United States that are interested in this type of work. We could also participate in different testing opportunities and so on.

To finish my presentation, I would like to stress that, first of all, I hope that you will find the types of activities which I have enumerated to be some of the areas with which we could cooperate in the future. Secondly, I would like to ask representatives of government organizations that are here today to consider the possibility of including in their assistance projects that are being planned for Russia as part of this work the creation of MSTs systems for our industries. Thank you.

U.S. - Russian Standards Working Group Meeting

**The Russian Research Center for Standardization
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U.S. - Russian Standards Working Group Meeting

VNITs SMV

1. Standardization of Materials
2. Materials Safety
3. Certification of Materials
4. Materials Information
5. Materials Research
Standard Reference Data

U.S. - Russian Standards Working Group Meeting

VNITs SMV

1. Standardization of Materials

- 9000+ Standards for
metallurgy
chemistry
oil and gas
fuel and power industry
food and agriculture
- Revision of 1803 Standards in 1993
- 156 Technical Committees of Gosstandart
- Participation in 67 ISO Committees

U.S. - Russian Standards Working Group Meeting

VNITs SMV

2. Materials Safety

- New System of Standards:
State System of Materials Safety
- Five Standards (GOST R) in 1993
- Two Russian Laws (drafts):
Hazardous Materials Safety
Materials Safety Passport
- Development of Materials Safety Passports
for Industry (Russian Version of MSDS)

U.S. - Russian Standards Working Group Meeting

VNITs SMV

3. Certification of Materials

- Analysis and Revision of Materials Standards
- Certification System for
plastic materials | over 100 testing labs
chemicals, oil and gas
wood and timber
- Accreditation of Materials Testing Laboratories
- Certification of Materials

U.S. - Russian Standards Working Group Meeting

VNITs SMV

4. Materials Information

- Registration of Materials Manufactured in Russia
- National Data Bank on Industrial Materials
- Data Bank on Advanced Materials

U.S. - Russian Standards Working Group Meeting

VNITs SMV

5. Materials Research Standard Reference Data

- Research at 250 Laboratories
- Data Certification and Publication
- Databases for Science and Technology
- Databases for Flow Measurement

PRESENTATION TO THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP

Dr. Andrey A. Sakov

Ladies and gentlemen:

In my contribution I would like to tell you about informational resources in standardization, metrology and certification. In GOSSTANDART of Russia, an informational support system has been operating for many years. It deals with standardization, certification and metrology. It belongs to informational resources of the Russian Federation that have great federal importance. The use of the system depends on the profile of corresponding constituent organizations within GOSSTANDART and, as Professor Bezverkhi has already mentioned, our informational system is supported by those structural units which belong to this rather big body of Russia GOSSTANDART. We have a kind of distributed database, and the informational resources are located in the site of its inception and processing. In the system more than 25 automated databases are operating that are networked and interconnected, and this refers to networks simply.

Informational support, standardization, certification and metrology include around 20 different trends of informational support. These trends largely coincide with those that are accepted and adopted in leading technically developed countries in the field of standardization, certification and metrology. Some of them are developed in our case to greater extent, some to a lesser extent. It all depends on the specificity of the development of the Russian Federation. This is not surprising because GOSSTANDART is engaged in international cooperation, international activity interacting with international bodies and with national organizations of more than 50 countries around the world. The greatest significance in the Russian Federation, I would say, is the work within what we call the "informational databases" because they are most valuable.

We have a database of over 500,000 domestic and foreign regulatory documents. This contains all documents in the field of standardization, metrology and certification. This base is kept in one of the institutions belonging to the system of GOSSTANDART, specifically VNIKI, which I represent. Concerning foreign documents we have 24,000 standards of international and regional organizations, including ISO, IEC, and others. We also have 240,000 national standards from the members of ISO and other national societies and associations.

In Russia great attention is paid to compilation of documents coming from the United States of America. For many years we cooperated with your country, and I have to say that in addition to national standards which come from NIST and which are obtained in the framework of an exchange programs within ISO for our Russian enterprises, of great interest also are standards of more than 35 American associations, societies and institutes. I cannot list them all, however, they are all extremely important, and this is particularly so for Russian enterprises which work more actively in the process of transition to a market

economy and international markets.

One more specific point regarding financial problems in Russia. Actualization of American standards is very difficult and now I would like to express our deep gratitude to the American Society of Testing Materials, American Society of Mechanical Engineering, American Association of Railroad Engineers, the Institute for Electronics and Electrical Engineers, and the American Society of Automotive Engineers which, with the mediation of NIST, responded to our request and provided, free of charge, several months ago whole sets of their standards for 1992. I take this opportunity to extend my gratitude to NIST for this initiative and to personally thank Dr. Warshaw and Mrs. Overman for their help and enormous support. In view of the great usefulness of contacts between VNIKI and NIST, we hope that these contacts will be continued in the future.

In addition to this fundamental set of standards, there is also the data base of standardized terminology. It includes more than 150 articles and the main emphasis in this matter is on the following: its definition in Russian has equivalent terms in English, German and French. In other words, this greatly facilitates translation of standards from one language into another. Also this dictionary can possibly be used for other purposes in the economic activity.

Moreover, there is a transition of the Russian Federation to generally accepted accounting practices and statistics which fit correspondence requirements of a market economy. This considerably increases the role of the database of classifiers. We have 38 classifiers reflecting information concerning administrative units of the country, its natural resources, goods and services, the acting documents standards, and other related matters. These classifiers represent an effective means to provide uniformity of information that is exchanged between different countries. This is also required for information processing purposes when we are dealing with interrelated aspects of economic activity. An important trend of the economic activity is the preparation of analytical reviews and other reviews on priority trends and standardization certification and metrology. To achieve this we also systematically analyze the flow of primary information and this includes national and international periodicals and other publications like monographs. Our research covers more than 50 foreign journals. Reviews are published by our institute and are circulated in the country. Thus, in 1992 we had published about 35 such reviews.

In order to have an idea about them, a few titles can be listed. We published a review about the American Society for Testing and Materials, another review concerns the factor of a state on the activity of a regional organization standards, intellectual property, energy conservation and a few others.

Information and certification is based on the corresponding register envisaged by GOSSTANDART. It concerns information about accredited test sites, certified products, goods and services, certified quality systems of enterprises that are operating, also about the systems of certification and accreditation that are operational around the world.

Another database refers to materials and substances. This database has been described by Mr. Kozlov. An important trend in information-related activity refers to metrology. Metrology databases contain the input of the reference base, verification potential of

corresponding services, about the types of verification and maintenance works, about measurements of the equipment that were subjected to verification. On the basis of the corresponding information, corresponding bibliography and other information can be provided. Regional centers equipped with informational indices are published as well as various catalogues. Just for your information, our estimates demonstrate that the number of requests for this information is very high. It's a few thousand requests per day.

Informational support in the system of GOSSTANDART is complimented by considerable publication activity. GOSSTANDART of Russia has its own publishing facility, a publishing house and printing shop in Moscow and Kaluga. We have also six distribution departments and shops located in the main regions of the Russian Federation. We have publication of a monthly standard index. Decisions about standards is taken only after we have some such preliminary information.

Annually we publish about 2,500 titles and the main proportion corresponds to these standards. In order to shorten the publication time, which is about four months now, we are looking forward to cutting down by at least a factor of two. Here the major effort is the development of a complete text database using the Standards Universal Marketing Language which is called SUML. This language is accepted in ISO.

It should be said though that under the conditions of transition to a market economy, of course, informational products were subjected to a rather strict pressure and the prices for these products jumped up very considerably. The trends of prices in the Russian economy was mentioned by Dr. Franklin Vargo. Now this trend does not refer exclusively to the system of standardization, but is pertinent for the whole informational activity. You can imagine the number of printed copies of newspapers decreased very considerably. They had far greater circulation, and the same is true for informational products for standardization, metrology and certification.

Just a few figures as an example. Presently the price for 24 printed pages increased by a factor of 300 to 400. It is still lower than the cost of printed matter in the United States by a factor of about 100 if we accept the existing exchange rate of ruble and dollar. Anyway, this resulted in the decreased circulation of information and publication by a factor of about 10. Despite these problems, however, of the system of informational support and publications of GOSSTANDART, the system continues to operate and it meets its function.

Now in conclusion, an important trend regarding our newer economic conditions. Development of a market economy in Russia generated publication activity which was commercially based. One such aspect is a data bank about enterprises and organizations of the Russian Federation. This contains commercial information, among other things. This database contains information of more than 60,000 companies, organizations and enterprises of Russia. The inception of this activity didn't come by chance. Yesterday when we acquainted ourselves with NIST, we were very much envious when we learned that NIST is financed 95 percent by the government. In Russia the state financing is far lower, and therefore we have to be engaged in our own independent economic activity.

We also are engaged in marketing studies concerning the demand for various products and goods in Russia in different regions. We undertake comparisons of various characteristics of certain goods and other similar studies and the studies are commercially based. Now, for companies of the United States I think this activity may be of some interest. We have sufficiently reliable information in contrast to some other institutions which are engaged in similar activity but do not always have information which is sufficiently reliable.

Another point is this, our studies are made on the basis of internationally accepted methods interacting with some companies now operating in the Russian Federation. Here we see a trend that will continue to develop and it will then lead to more activity along the alliance.

In conclusion I would like to say once again, that we are interested in permanent contact and cooperation with NIST and other American companies and organizations with different forms of ownership now in Russia. There are no limitations for business contact with us regarding the informational aspects that I have mentioned. Thank you.

PRESENTATION BY



THE AMERICAN PETROLEUM INSTITUTE

TO THE

INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS DEVELOPMENT COMMITTEE

STANDARDS WORKING GROUP

March 24, 1993

SLIDE 1

GOOD AFTERNOON. I AM BARBARA BOYKIN, STANDARDS COORDINATOR FOR THE AMERICAN PETROLEUM INSTITUTE (API). ON BEHALF OF API, I WOULD LIKE TO THANK DR. WARSHAW AND OUR COLLEAGUES FROM GOST FOR THE INVITATION TO PARTICIPATE IN THIS MEETING OF THE STANDARDS WORKING GROUP OF THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS DEVELOPMENT COMMITTEE.

API APPRECIATES THE HISTORIC OPPORTUNITY WE HAVE BEFORE US, TO HARMONIZE THE TECHNICAL REQUIREMENTS OF THE UNITED STATES AND RUSSIA. THIS OPPORTUNITY IS ALL THE MORE IMPORTANT IN THE FIELD OF PETROLEUM, AS RUSSIA UNDERTAKES EFFORTS TO MODERNIZE AND EXPAND ITS OIL AND GAS SUPPLY SYSTEM TO MEET ITS FUTURE ENERGY NEEDS.

SLIDE 2

API IS A TRADE ASSOCIATION WHOSE MISSION IS TO PROVIDE PUBLIC POLICY DEVELOPMENT AND ADVOCACY, RESEARCH AND TECHNICAL SERVICES FOR THE PETROLEUM INDUSTRY. API REPRESENTS THE INTERESTS OF MORE THAN 250 MEMBER COMPANIES INVOLVED IN ALL ASPECTS OF THE OIL AND NATURAL GAS INDUSTRY, INCLUDING EXPLORATION, PRODUCTION, TRANSPORTATION, REFINING AND MARKETING OF PETROLEUM PRODUCTS. THOUSANDS OF COMPANY EMPLOYEES PARTICIPATE IN THE MANY COMMITTEES, SUBCOMMITTEES AND TASK FORCES THAT CARRY OUT THE INSTITUTE'S WORK.

SLIDE 3

API FULFILLS THE TECHNICAL PART OF ITS MISSION THROUGH THE DEVELOPMENT OF STANDARDS AND RELATED PUBLICATIONS; THE OPERATION OF

CERTIFICATION AND LICENSING PROGRAMS; TRAINING; AND TECHNICAL REFERENCE SERVICES. IN THE BRIEF OVERVIEW I WILL PROVIDE TO YOU TODAY, I WILL CONCENTRATE ON THE STANDARDS AND CERTIFICATION PORTIONS OF OUR PROGRAM.

SLIDE 4

SINCE ITS FOUNDING IN THE EARLY PART OF THE 20TH CENTURY, API HAS DEVELOPED A BODY OF STANDARDS, SPECIFICATIONS AND RECOMMENDED PRACTICES WHICH ARE USED BY THE PETROLEUM INDUSTRY TO PURCHASE EQUIPMENT, INSTALL AND OPERATE FACILITIES, AND MARKET PRODUCTS SAFELY AND EFFICIENTLY. API STANDARDS COVER ALL AREAS OF INTEREST TO THE PETROLEUM INDUSTRY, INCLUDING EXPLORATION AND PRODUCTION, MARKETING, MEASUREMENT, PIPELINES, REFINING, HEALTH AND ENVIRONMENT, AND SAFETY AND FIRE PROTECTION. A NUMBER OF API STANDARDS ARE APPROVED BY ANSI AS AMERICAN NATIONAL STANDARDS. AS YOU WILL SEE IN THE CATALOG, API ALSO PUBLISHES RESEARCH STUDIES AND OTHER INFORMATIONAL REPORTS.

SLIDE 5

ALTHOUGH THEY INCLUDE THE WORD "AMERICAN" IN THEIR TITLE, API STANDARDS HAVE FOR MANY YEARS SERVED AS DE FACTO INTERNATIONAL STANDARDS BECAUSE THEY HAVE BEEN USED BY PETROLEUM COMPANIES ALL OVER THE WORLD. API STANDARDS HAVE PROVIDED THE BASIS FOR MUCH OF THE ISO WORK IN THE FIELDS OF PETROLEUM AND NATURAL GAS. ISO/TC 28, TC 67 AND TC 193 HAVE MADE USE OF THE SOUND TECHNICAL CONTENT OF API DOCUMENTS IN DEVELOPING INTERNATIONAL STANDARDS.

RECENTLY, AS U.S. COMPANIES BECOME MORE INTERESTED IN DOING BUSINESS IN RUSSIA, DEMAND HAS INCREASED FOR TRANSLATIONS OF API STANDARDS INTO THE RUSSIAN LANGUAGE. A NUMBER OF STANDARDS IN THE FIELDS OF EXPLORATION AND PRODUCTION AND MEASUREMENT HAVE ALREADY BEEN TRANSLATED, AND ANOTHER GROUP IS BEING PREPARED TO BE TRANSLATED. I WILL PROVIDE OUR GOST REPRESENTATIVES WITH A LIST OF THESE STANDARDS.

SLIDE 6

IN AN AREA CLOSELY RELATED TO STANDARDS, API OPERATES SEVERAL IMPORTANT CERTIFICATION AND LICENSING PROGRAMS. THE MONOGRAM PROGRAM LICENSES MANUFACTURERS WHO CONSISTENTLY COMPLY WITH API SPECIFICATIONS, AND PUBLISHES THEM IN THE COMPOSITE LIST OF MANUFACTURERS. INSPECTORS OF ABOVEGROUND STORAGE TANKS AND PRESSURE VESSELS ARE CERTIFIED TO ANSI/API 653 AND ANSI/API 510, ESSENTIALLY CONSTITUTING AN INDUSTRY PROGRAM OF SELF-REGULATION. A VOLUNTARY ENGINE OIL LICENSING PROGRAM IS OPERATED ON A WORLDWIDE BASIS, UNDER API PUBLICATION 1509, ENGINE OIL LICENSING AND CERTIFICATION SYSTEMS.

SLIDE 7

THESE CERTIFICATION AND LICENSING PROGRAMS ARE OPEN TO PARTICIPATION ON A WORLDWIDE BASIS. IN FACT, I HAVE HERE THE NAMES OF FOUR COMPANIES IN THE FORMER SOVIET UNION WHICH EITHER HAVE BEEN LICENSED, OR HAVE APPLIED TO BE LICENSED, UNDER API'S MONOGRAM PROGRAM. WE WOULD ENCOURAGE OUR COLLEAGUES FROM GOST, AS YOU BUILD

UP THE CERTIFICATION SYSTEM IN RUSSIA, TO TAKE ADVANTAGE OF EXISTING PROGRAMS SUCH AS THOSE OF THE API IN THE PETROLEUM FIELD.

SLIDE 8

TURNING BRIEFLY TO THE LAST TWO COMPONENTS OF API'S TECHNICAL PROGRAM, THE INSTITUTE SPONSORS TRAINING MATERIALS, CONFERENCES AND SCHOOLS FOR FIELD AND PLANT PERSONNEL. THE "PROFIT" AND "PILOT" PROGRAMS, FOCUSSED ON PERSONNEL IN THE UPSTREAM (EXPLORATION AND PRODUCTION) AND DOWNSTREAM (REFINING) AREAS, ARE API'S MAJOR TRAINING PROGRAMS.

IN THE TECHNICAL REFERENCE AREA, API'S CENTRAL ABSTRACTING AND INFORMATION SERVICE PROVIDES ON-LINE DATABASES AND PRINT ABSTRACTS AND INDEXES OF WORLDWIDE TECHNICAL LITERATURE IN THE PETROLEUM AND PETROCHEMICAL FIELDS.

SLIDE 9

IN CLOSING, I WOULD LIKE TO EMPHASIZE THE INTEREST OF THE AMERICAN PETROLEUM INSTITUTE IN WORKING WITH GOST IN THE FIELDS OF STANDARDIZATION AND CERTIFICATION, TO AID RUSSIA IN MODERNIZING AND EXPANDING ITS OIL AND GAS INFRASTRUCTURE, IMPROVING THE EFFICIENCY OF OPERATIONS, AND ATTAINING PRODUCTIVITY GAINS TO MEET RUSSIA'S FUTURE ENERGY NEEDS. API WELCOMES THIS OPPORTUNITY TO MEET WITH YOU TODAY, AND HOPES IT WILL MARK THE BEGINNING OF AN ONGOING DIALOGUE AND COOPERATION. IF I CAN ASSIST IN THIS PROCESS, I HOPE YOU WILL CONTACT ME.

AP

AMERICAN PETROLEUM INSTITUTE

API'S MISSION

**TO PROVIDE PUBLIC POLICY DEVELOPMENT
AND ADVOCACY, RESEARCH AND TECHNICAL
SERVICES FOR THE PETROLEUM INDUSTRY.**

API TECHNICAL PROGRAMS

- O STANDARDS & OTHER PUBLICATIONS**
- O CERTIFICATION & LICENSING PROGRAMS**
- O TRAINING PROGRAMS**
- O TECHNICAL REFERENCE SERVICES**

API STANDARDS & RECOMMENDED PRACTICES

- O EXPLORATION & PRODUCTION**
- O MARKETING**
- O MEASUREMENT**
- O PIPELINES**
- O REFINING**
- O HEALTH & ENVIRONMENTAL**
- O SAFETY & FIRE PROTECTION**

API STANDARDS WORLDWIDE

- O WIDE INTERNATIONAL USAGE**
- O PROVIDE BASIS FOR MANY ISO STANDARDS**
- ISO/TC 28 - PETROLEUM PRODUCTS & LUBRICANTS**
- ISO/TC 67 - MAT'LS & EQUIP FOR PETROLEUM & NATURAL GAS INDUSTRIES**
- ISO/TC 193 - NATURAL GAS**
- O TRANSLATIONS INTO RUSSIAN LANGUAGE**

API CERTIFICATION & LICENSING PROGRAMS

- O MONOGRAM PROGRAM**
- O ABOVEGROUND STORAGE TANK
INSPECTOR CERTIFICATION**
- O PRESSURE VESSEL INSPECTOR
CERTIFICATION**
- O ENGINE OIL CERTIFICATION**

**FSU COMPANIES LICENSED UNDER API
MONOGRAM PROGRAM**

- O VOLSKI TUBE MILL - licensed**
- O SUMY FRUNZE MACHINE-BLDG SCIENCE &
PRODUCTION AMALGAMATION - licensed**
- O KHARTSYZSK TUBE WORKS - application
submitted**
- O VYSKA STEEL WORKS - application submitted**

**TRAINING PROGRAMS AND TECHNICAL
REFERENCE SERVICE**

- O PROFIT & PILOT TRAINING PROGRAMS**
- O CENTRAL ABSTRACTING & INFORMATION
SERVICE (CAIS)**

FOR FURTHER INFORMATION, CONTACT:

**AMERICAN PETROLEUM INSTITUTE
1220 L ST. N.W.
WASHINGTON, D.C. 20005**

**Barbara Boykin
Standards Coordinator
(202) 682-8443**



American Petroleum Institute

*providing public policy development and advocacy; research and technical services
for the petroleum industry*

Certification and Licensing Programs

* *Aboveground Storage Tanks and Pressure Vessels*—Certifying inspectors of aboveground storage tanks and inspectors of pressure vessels based on ANSI/API 653 and ANSI/API 510, respectively, promoting self-regulation and establishing uniform national programs.

* *Monogram Program*—Identifying and licensing manufacturers who consistently comply with API specifications. API monogram licensees are published in the *Composite List of Manufacturers*.

* *Engine Oil Licensing and Certification*—Managing a worldwide voluntary engine oil licensing program. The new, twelfth edition of publication 1509, *Engine Oil Licensing and Certification Systems* describes an expanded program.

Training Programs—Sponsoring training materials, conferences, and schools for both upstream and downstream operations. The PILOT and PROFIT are API's basic operations and maintenance training programs providing an efficient and cost-effective mechanism for training field and plant personnel.

Technical Reference Programs

Central Abstracting & Information Service (CAIS)—Monitors worldwide technical literature, patents, and business news covering the petroleum refining and petrochemicals industries. Services include online databases and print abstract bulletins and indexes.

Publications and Standards—Publishing standards, recommended practices and general information covering all facets of the petroleum industry from exploration and production through manufacturing and distribution along with health, environmental, and safety and fire issues.

Recent releases include:

- * CD-ROM collections of current API documents
- * *RP 9000, Management Practices, Self-Assessment Process Resource Materials* for implementation of API's STEP Program—Strategies for Today's Environmental Partnership
- * MPMS 14.3.4, "Background, Development, Implementation Procedures and Subroutine Documentation," the last section of the four part revision on ANSI/API 2530, in the *Manual of Petroleum Measurement Standards*, Chapter 14, "Natural Gas Fluids Measurement," Section 3, "Concentric, Square-Edged Orifice Meters"
- * *Weekly Oxygenate Report* available electronically, by fax, and in print
- * *Audit Control Guide* for electronic data interchange
- * Supplement 2, July 1992, to Specification 6A, *Valves and Wellhead Equipment*, sixteenth edition
- * *Proceedings of the 1991 Oil Spill Conference Infobase*, available in both 3.5 and 5.25 inch diskettes

List of API Publications Translated into Russian

Spec Q1, Specification for Quality Programs, Fourth Edition,
January 1, 1992

Spec 5LC, Specification for CRA Line Pipe, Second Edition, August 1, 1991

RP 5LW, Recommended Practice for Transportation of Line Pipe on Barges and Marine
Vessels (Combination of Former RP 5L5 and RP 5L6), First Edition, November 1, 1990

RP 5L1, Recommended Practice for Railroad Transportation of Line Pipe, Fourth Edition,
February 1, 1990

RP 5L2, Recommended Practice for Internal Coating of Line Pipe for Non-Corrosive Gas
Transmission Service, Third Edition, May 1987

P 5L3, Recommended Practice for Conducting Drop-Weight Tear Tests on Line Pipe,
Second Edition, March 1978

RP 5L7, Recommended Practices for Unprimed Internal Fusion Bonded Epoxy Coating of
Line Pipe, Second Edition, June 30, 1988

P 5L8, Recommended Practice for Field Inspection of New Line Pipe, First Edition, May 1,
1990

Bull. 5T1, Bulletin on Imperfection Terminology, Ninth Edition, May 31, 1988

Manual of Petroleum Measurement Standards

CH. 4, Proving

CH. 5, Metering

CH. 8, Sampling

CH. 9, Density Determination

List of API Publications to be Translated into Russian

Spec 11 AX, Specification for Subsurface Sucker Rod Pumps and Fittings, Ninth Edition, June 1, 1989

RP 11AR, Recommended Practice for Care and Use of Subsurface Pumps, Third Edition, June 1, 1989

Spec 11B, Specification for Sucker Rods, Twenty-Fourth Edition, October 1, 1990
(Supplement I to the twenty-fourth edition of Spec 11B, April 1, 1991)

Bull. 5A2, Bulletin on Thread Compounds for Casing, Tubing, and Line Pipe, Sixth Edition, May 1988

RP 5A5, Recommended Practice for Field Inspection of New Casing, Tubing, and Plain End Drill Pipe, Fourth Edition, May 1, 1989

Spec 5B, Specification for Threading, Gaging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads, Thirteenth Edition, May 31, 1988

RP 5B1, Recommended Practice for Gaging and Inspection of Casing, Tubing and Pipe Line Threads, Third Edition, June 15, 1988

RP 5C1, Recommended Practice for Care and Use of Casing and Tubing, Sixteenth Edition, May 31, 1988

Bull 5C2, Bulletin on Performance Properties of Casing, Tubing, and Drill Pipe, Twentieth Edition, May 1987

Bull 5C3, Bulletin on Formulae and Calculations for Casing, Tubing, Drill Pipe, and Line Pipe Properties, Fifth Edition, July 1, 1989

Bull 5C4, Bulletin on Round Thread Casing Joint Strength with Combined Internal Pressure and Bending, Second Edition, May 1987

RP 5C5, Recommended Practice for Evaluation Procedures for Casing and Tubing Connections, First Edition, January 1, 1990

Spec 5CT, Specification for Casing and Tubing (Metric Units), Fourth Edition, August 1992

Spec 5D, Specification for Drill Pipe, Third Edition, August 1, 1992

Spec 5L, Specification for Line Pipe, Fortieth Edition, September 1, 1992

**PRESENTATION TO THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**Jim Thomas, President
American Society for Testing and Materials**

Good morning! It is a great pleasure to be here with our friends from Russia and my colleagues from the standards community. What I would like to do is spend some time going over some of the aspects of ASTM and attempt to provide some specific information that may be of use for ongoing discussions between ASTM and GOSSTANDART.

I'd like to first start with why we are involved with standards at all. Standards help to contribute to product quality and in many cases they serve to ensure product quality. They provide a mechanism for lower costs of production, for maintenance of various part supplies and interchangeability of standardization, and improve communication because they provide a standard language between the buyer and the seller.

ASTM provides a system for the development of voluntary standards. ASTM does not provide for laboratory technicians nor is ASTM involved in product certification programs. ASTM was organized in 1898 in response to a need for standardized field specifications and test methods for the railroads. Today ASTM is one of the world's largest developers of voluntary consensus standards. We have 34,000 members worldwide working on 131 different technical committees. ASTM's international membership in 1993 included 4,305 members from outside of the United States, representing 90 different countries from around the world. We would like to see Russia on this list of active participants in ASTM standards activities.

ASTM has published more than 9,000 standards. We were happy to provide a full set of ASTM technical standard to GOSSTANDART earlier this year through the efforts of Dr. Warshaw. These are a sample of the standards activities ASTM is involved in. The specific areas that I heard of yesterday in your presentations were in the consumer products area and in the medical and surgical materials and devices area. ASTM also provides for standards that can be used for certification programs to assure the quality of the products that are entering the Russian marketplace.

An important part of ASTM standards development activities is the opportunity for U.S. industry to carry forth the documents ASTM produced into ISO. Currently, ASTM supports, through the American National Standards Institute, the U.S. member body to ISO, the U.S. Technical Advisory Group to over 50 ISO activities. The mission of ASTM is to produce credible, technically-competent standards that are accepted throughout the world. This is a listing of the areas in the world where distribution of ASTM standards and technical information is available. Similar to the discussions from GOSSTANDART yesterday, the ASTM system provides for open discussion, balanced representation of interests and due process procedures to ensure that the content of the standards are technically valid. It is important to note that standards development is market driven. Unless there is a need,

there is probably limited chance to get people to work on a volunteer basis to develop the standards.

This is a question that is frequently asked of ASTM. There are those who don't have the correct information as to how long it actually does take to develop a standard. It takes an average of 18 to 24 months to develop an ASTM standard, and it is dependent on the urgency of the need, how complex the job is, and the amount of time the volunteer members of the committees are willing to devote to the process of standards.

Are the ASTM standards mandatory? Only when they are called out in a federal regulation, or they are made part of a purchase contract, or they are specified in one of our building codes. The cost for developing standards at ASTM is borne by the individual members who pay travel to meetings and contribute their time. There are no other project costs for developing standards at ASTM.

This is a listing of some of the support elements ASTM provides to the technical experts. Key is the administrative and meeting support for the individual technical committees. Where does ASTM get its money to support its activities? It is a private sector, not-for-profit, non-government organization. It receives 80 percent of its revenue from the sale of documents, 10 percent from administrative fees, and 10 percent from other sources which includes interest in investments and the sale of various other standards-related programs. So you can see that since we get 80 percent of our income from selling publications, we only give our standards away to very special friends.

A few words on other programs that may be of interest to GOSSTANDART. We conduct many symposiums during the year where technical specialists present papers. We also conduct standards technology training sessions, which could provide the mechanism where your technicians and your specialists could be trained in the use of ASTM standards by the technical experts who have developed the standards. Our Institute for Standards Research provides a mechanism for industry and government to pool their resources to develop data on specific technical issues that will ultimately support standards development programs. And our proficiency test programs provide a mechanism for laboratories to participate in programs where they run samples in their laboratory so that they can determine whether they are matching up well with the performance of other laboratories around the world.

ASTM standards have been recognized for their quality around the world. They are timely and maintained so that they reflect the current state of the art. Some will argue that they are not at minimal cost. We believe they are. Ours is a market-driven consensus process that provides a global publications network so that if you need an ASTM standard anywhere in the world, you have immediate access to that technical information.

I thank you for the opportunity to spend this time with you.

Welcome



How do standards support industry goals?

- **Provide access to markets**
- **Ensure product quality**
- **Lower costs**
- **Improve communication**

**ASTM is a management system for the
development of voluntary, full-consensus
standards**

**ASTM was organized in 1898 in response to
a need for standardized steel specifications
and test methods for the railroads**

Today, ASTM is one of the world's largest standards development organizations:

- 34,000 members worldwide**
- 131 technical committees**

**More than 9,000 standards are published
each year in the 69-volume Annual Book of
ASTM Standards, plus related technical
information**

Standards activities include:

- **metals**
- **paints**
- **plastics**
- **textiles**
- **petroleum**
- **construction**
- **energy**
- **the environment**

- **consumer products**
- **medical and surgical materials and devices**
- **computerized systems**
- **electronics**
- **many other areas**

**ASTM produces credible, technically
competent standards that are accepted
throughout the world.**

The ASTM system:

- **open discussion**
- **balanced representation of interests**
- **strict balloting procedures**
- **all who have an interest are heard**

- **Standards development is market driven**
- **Work begins when a need is identified**

How long does it take?

- **urgency of need**
- **complexity of job**
- **amount of time the committee can devote**

Are ASTM standards mandatory?

Legal issues

- **due process**
- **anti-trust violation**
- **liability**
- **authority and responsibility**

Costs to the member:

- **\$50/year administrative fee (individual membership); \$350/year administrative fee (organizational membership)**
- **Travel to meetings**
- **Time**
- **No other costs**

Administrative support:

- **committee formation**
- **roster maintenance**
- **committee mailings**
- **balloting administration**
- **meetings support**
- **publicity**
- **awards program**
- **full time staff liaison**

Sources of revenue:

- **80% sale of publications**
- **10% administrative fees**
- **10% other income**

Other programs:

- **symposia**
- **Standards Technology Training courses**
- **Institute for Standards Research**
- **Proficiency Test Programs**

5 Key Benefits of ASTM:

- **proven management system**
- **high quality, timely standards**
- **minimal costs**
- **market driven consensus**
- **global publications network**

PRESENTATION TO THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP

Andrew Salem
The Institute of Electrical and Electronics Engineers, Inc.

Good morning! I am Andy Salem, Director of the Standards Activities for the Institute of Electrical and Electronics Engineers. IEEE is the world's largest professional engineering society. It has 320,000 members at the present time. Every country of the world has IEEE members, sections, chapters and other kinds of activities.

Two thirds of the members are within the U.S.; one third are outside the U.S. Membership outside the United States is growing rapidly, and by the year 2000 half the membership will be outside of the U.S. IEEE has always maintained that technology does not have any borders, and it has always managed to have relationships with other technical societies outside the United States. Essentially IEEE views itself as non-national. Membership in the Soviet Union is not large, but we expect it to grow.

The IEEE publishes 25 percent of the world's technical literature on electro-technology. We have arrangements with the IEE of Great Britain, and together we publish approximately a third of the world's technical literature on electro-technology. The technical information that we have supports the standards program and makes our program somewhat unique. In 1992 we had 32,000 volunteers working in the standards program. They published 94 standards. It is very misleading to try to look at the size of various organizations. ASTM published 9,000 standards; we published about 10,000 pages that year. We have about 100,000 pages of standards. And we have 643 active standards in engineering and computer science.

This technical activity is the resource for the IEEE Standards Program, which is a partnership between members and staff. The members provide the technical basis and the staff provides the administration of the standards development programs. There are 26 elected members on the Standards Board of the Institute that provide policy guidance and direction for the standards activities.

The Standards Board is elected by the membership. The standards program emulates the Institute itself. There is a committee under the Board for program development. This committee is presently looking at certification, accreditation, and other conformity assessment activities. There is a committee which is concerned with international activities, an administrative and a controls committee, as well as an awards committee. The Standards Press Committee publishes information about standards, and we also develop and administer seminars on standards-related subjects.

The standards development work is actually accomplished in three ways under the IEEE: first, there are the standards are developed by the 37 societies, 18 or 19 of which are most active in standards development. Then, there are the coordinated standards which are

developed at joint meetings of the various societies and by the members of the societies. They are standards activities that are still within the societies but their activities are of interest to more than one society. Lastly, there are the Accredited Standards Committees. These are committees that were formerly ANSI committees, i.e., committees of the American National Standards Institute. In 1975, ANSI divested itself of all standards development activity. The committees still bear the designations they had before. This activity differs from the other activities in IEEE since representation on these committees is by organization. For all of the other activities, the representation is by individuals.

The IEEE program was for many years U.S. based and primarily recognized as American standards. In 1980 the Institute began to make the transition to a more international focus. The standards program follows the Institute, and today IEEE has an international focus to meet the needs of the changing of markets and the global economy.

IEEE standards can be developed anywhere in the world. They are not necessarily developed in the U.S. although a majority are today. One example is Standard No. 187 which was completely developed in Tokyo by the Tokyo section. Last week at our standards board meeting a new program was initiated on microprocessors. The program has about \$360 million of funding in the EEC community and will consist of all IEEE standards.

In 1987 IEEE reviewed the issue of how to get the standards that they develop into the world so they can be used. From that discussion came the directive of the executive committee of the Standards Board to promote the establishment of international standards. The result was that the Standards Board removed all commercial impediments from the adoption or use of IEEE standards by national or international standards. Also one of the programs that was instituted was the cross adoption program. Standards developers must stop duplicating each other's efforts and use those existing standards that provide the right fit for intended purpose.

Many joint programs and cooperative programs with technical organizations around the world have been established. The IEEE program looks to participation throughout the world in its standards program. We have come to the conclusion that it will not happen at the rate that we want if we have to travel to those meetings. The answer will be to coordinate the process, to use the latest information exchange and technologies--the very standards that we're developing in computer science--and to make the program accessible to anyone in the world. We have a very comprehensive program to be launched by the end of this year to provide those activities.

Thank you.

**IEEE STANDARDS
PRESENTATION
TO
GOSSTANDART
OF
RUSSIA**

24 MARCH 1993

GAITHERSBURG, MARYLAND



THE INSTITUTE OF ELECTRICAL
AND ELECTRONICS ENGINEERS, INC.

WHAT IS THE IEEE?

- **WORLD'S LARGEST PROFESSIONAL ENGINEERING SOCIETY**
- **AN ORGANIZATION WITH INTERNATIONAL MEMBERSHIP**
- **A PROFESSIONAL SOCIETY THAT RECOGNIZES THAT TECHNOLOGY HAS NO BORDERS**
(TRANSNATIONAL)
- **NON-NATIONAL (NOT AMERICAN, SPANISH, RUSSIAN, ETC.)**

IEEE
PRODUCES AND
PUBLISHES
25%
OF THE WORLD'S
LITERATURE
IN
ELECTROTECHNOLOGY

TYPES OF IEEE PUBLICATIONS

PAPERS: INDIVIDUAL OPINION

PROCEEDINGS: COLLECTIONS OF
OPINIONS

TRANSACTIONS: PEER REVIEWED
COLLECTIONS

**JOURNALS &
MAGAZINES:** AUTHORITATIVE
ARTICLES

STANDARDS: CONSENSUS OF
OPINIONS

**THIS
TECHNICAL ACTIVITY
IS THE RESOURCE
FOR THE
IEEE STANDARDS
PROGRAM**

IEEE STANDARDS 1992

32 000 VOLUNTEERS

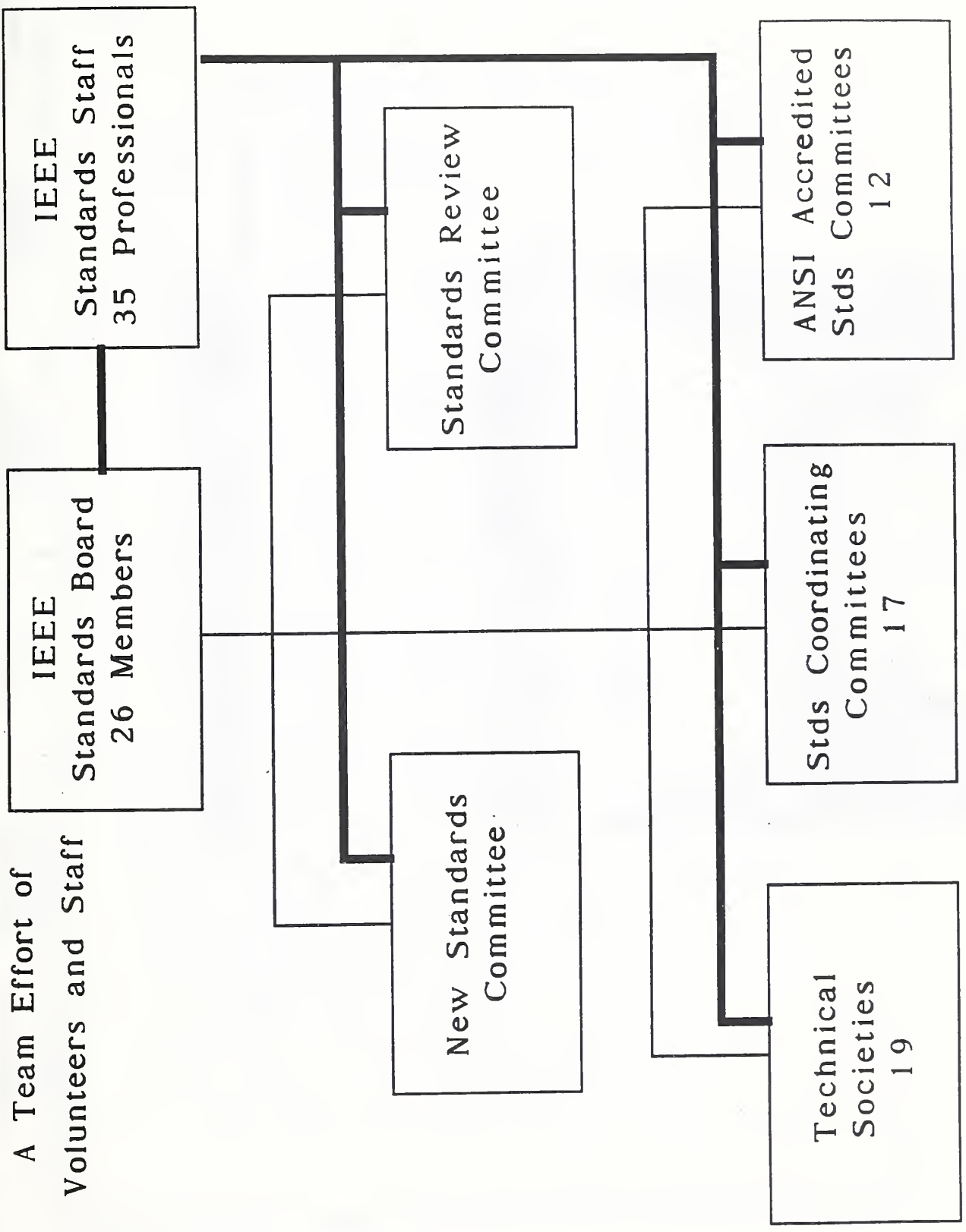
94 STANDARDS PUBLISHED

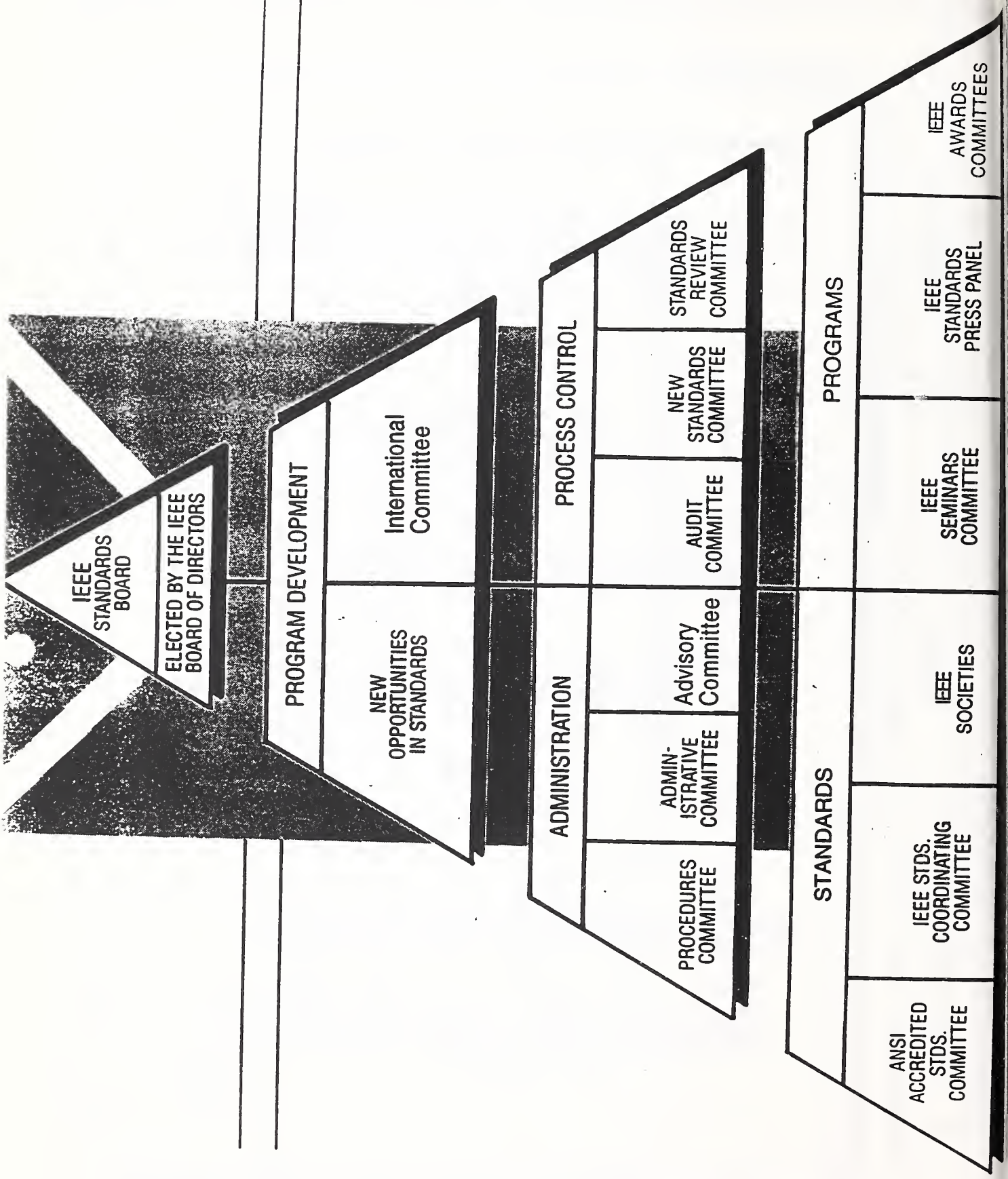
**643 ACTIVE STANDARDS,
PRIMARYLY IN:**

- POWER**
- ELECTRICAL APPARATUS**
- COMPUTER SOFTWARE**

IEEE Standards Development

A Team Effort of
Volunteers and Staff





IEEE SOCIETIES DEVELOPING STANDARDS

- **AEROSPACE & ELECTRONICS**
- **ANTENNAS AND PROPAGATION**
- **BROADCAST TECHNOLOGY**
- **CIRCUITS & SYSTEMS**
- **COMMUNICATIONS**
- **COMPUTER**
- **DIELECTRICS & ELECTRICAL INSULATION**
- **ELECTROMAGNETIC COMPATIBILITY**
- **ELECTRON DEVICES**
- **ENGINEERING IN MEDICINE & BIOLOGY**
- **INDUSTRY APPLICATIONS**
- **INSTRUMENTATION AND MEASUREMENT**
- **LASEROPTICS**
- **MICROWAVE THEORY & TECHNIQUES**
- **NUCLEAR & PLASMA SCIENCES**
- **POWER ELECTRONICS**
- **POWER ENGINEERING**
- **ULTRASONICS, FERROELECTRIC, &
FREQUENCY CONTROL**

IEEE STANDARDS COORDINATING COMMITTEES

- **THERMAL RATING**
- **DEFINITIONS**
- **GRAPHICS SYMBOLS & DESIGNATIONS**
- **QUANTITIES, UNITS, & LETTER SYMBOLS**
- **NATIONAL FIRE PROTECTION
ASSOCIATION STANDARDS**
- **ABBREVIATED TEST LANGUAGE FOR ALL
SYSTEMS (ATLAS)**
- **PHOTOVOLTAICS**
- **POWER QUALITY**
- **DISPERSED ENERGY STORAGE &
GENERATION**
- **INFORMATION TECHNOLOGY**
- **FIBER OPTICS**
- **TIME & FREQUENCY**
- **NON-IONIZING RADIATION**
- **STATIONARY BATTERIES**
- **ANALOG HARDWARE DESCRIPTION
LANGUAGE**
- **AUTOMATIC METER READING & ENERGY
MEASUREMENT**
- **INTELLIGENT VEHICLE HIGHWAY SYSTEMS**

ACCREDITED STANDARDS COMMITTEES

- C2 NATIONAL ELECTRICAL SAFETY CODE**
- C12 ELECTRICITY METERING**
- C37 POWER SWITCHGEAR**
- C50 ROTATING ELECTRICAL MACHINERY**
- C57 TRANSFORMERS, REGULATORS,
& REACTORS**
- C62 SURGE ARRESTERS**
- C63 ELECTROMAGNETIC COMPATIBILITY**
- C92 INSULATION COORDINATION**
- N13 RADIATION PROTECTION**
- N42 NUCLEAR INSTRUMENTS**
- N317 JOINT N13 & N42 EFFORTS**
- N449 EQUIPMENT & MATERIALS FOR
MEDICAL RADIATION APPLICATIONS**

IEEE STANDARDS PROGRAM

WAS PRIMARILY US-BASED

IS CHANGING TO AN
INTERNATIONAL FOCUS

TO MEET THE NEEDS OF THE
CHANGING WORLD
MARKETS AND A
GLOBAL ECONOMY

**1987
IEEE EXECUTIVE COMMITTEE
DIRECTIVE**

STANDARDS BOARD TO PROMOTE
ESTABLISHMENT OF
INTERNATIONAL STANDARDS
OVER ANY COMMERCIAL INTERESTS

IEEE STANDARDS BOARD

REMOVED ALL COMMERCIAL IMPEDIMENTS
FROM THE ADOPTION OR USE
OF ITS STANDARDS
BY NATIONAL, REGIONAL, OR
INTERNATIONAL STANDARDS BODIES...

*AIMED AT ADVANCING
INTERNATIONAL STANDARDIZATION*

IEEE STANDARDS PROGRAM

WAS PRIMARILY US-BASED

IS CHANGING TO AN
INTERNATIONAL FOCUS

TO MEET THE NEEDS OF THE
CHANGING WORLD
MARKETS AND A
GLOBAL ECONOMY

CROSS-ADOPTION

**STANDARDS DEVELOPERS
MUST STOP DUPLICATING
EACH OTHER'S EFFORTS,
AND INSTEAD USE THOSE
EXISTING STANDARDS THAT
PROVIDE THE RIGHT FIT
FOR THE
INTENDED PURPOSE**

- **BEST USE OF TECHNICAL
AND FINANCIAL RESOURCES**
- **ENCOURAGES GLOBAL
ENVIRONMENT OF
TECHNICAL COOPERATION**

TECHNICAL COOPERATION AROUND THE WORLD

- **JOINT RESEARCH**
- **COMMON MEMBERSHIP**
- **EXCHANGING DATA**
- **ONGOING COOPERATION BETWEEN
PROFESSIONAL, TECHNICAL
SOCIETIES AND OTHER
STANDARDS BODIES**
 - **COMMITTEES SYNCHRONIZE
EFFORTS**
 - **SOCIETIES' TECHNICAL WEALTH
FEEDS WORLD STANDARDS
ACTIVITIES**

FACILITATE WORLD PARTICIPATION THROUGH ELECTRONIC MEANS

- INTERNAL AUTOMATION
- BROAD DATA-BASE CAPABILITY
- INTERNET ELECTRONIC MAIL NETWORK
- ELECTRONIC BULLETIN BOARD
- SGML
- HYPERTEXT
- ON-LINE DELIVERY
- ELECTRONIC MEDIA
- TELECONFERENCING

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ACCREDITATION AND CONFORMITY ASSESSMENT PATHS TO RUSSIAN-AMERICAN BUSINESS COOPERATION

Walter R. Mikesell, Jr.

Meeting of
Intergovernmental US-Russian Business
Development Committee's Standards Working Group
March 23-24, 1993
Gaithersburg MD

Western corporations who enter into joint ventures with Russian associations and/or corporations are interested in having ASME conformity assessment programs and related ASME codes and standards accepted as a means of meeting the requirements of the Russian Consumer Rights Protection Act. Mr. Walter R. Mikesell, Jr. recently returned from Russia following the successful completion of an ASME U and U₂ accreditation review of the pressure vessel manufacturing plant in Volgograd which he had assisted. Mr. Mikesell is a senior consultant for Robert L. Cloud and Associates and has been, and is, very active in ASME codes, standards, accreditation, and certification activities. He is currently the elected ASME Vice President, Pressure Technology Codes and Standards, and in June of this year he will assume the office of ASME Senior Vice President, Codes and Standards. Today, Mr. Mikesell will share his first hand experiences in Russian-U.S. business cooperation.

GREETINGS

The information about ASME accreditation and conformity assessment is contained in the material prepared by ASME which has been distributed at this meeting. Some of the ways those programs can contribute to Russian-American Business Cooperation are well known in the academic sense. I would like to help you travel a beaten path of the most real kind, a path that is now open and active.

It is well known that American companies prefer to have their equipment built to the requirements of codes and standards that are known to them to result in safe and reliable components. It is also well known that many American companies are either investigating the possibility of ventures in Russia and the other Community of Independent States [CIS] republics or have already concluded agreements with work in progress.

Approximately two and one-half years ago an American company, Chevron, was discussing a possible venture in the republic of Kazakhstan. Since the successful completion of the negotiations would result in the need to procure refinery equipment, Chevron sent several engineers to survey potential sources of such products in the general part of the CIS near Kazakhstan. One of the places visited was Volgograd and a pressure vessel manufacturing plant named Volgogradneftemash was found. The Chevron engineers were favorably impressed with the capabilities of the company, which I'll call VNM for simplicity. However, they did tell the management that Chevron would encourage VNM to explore getting ASME accreditation to construct their products to the ASME Code and furnish them with the Code Stamp applied. Further, it was suggested that VNM would profit from working with an American engineer that was experienced in the ASME Code and knowledgeable of the way American oil companies specify requirements for their refineries. They even went so far as to provide the name of a person that would be able to provide the recommended assistance. Upon returning home, the Chevron engineers advised the person recommended of the situation and offered to assist in establishing initial contact.

It took one year for the initial contact to mature into the first face-to-face meeting at the Volgogradneftemash plant. The initial meeting consisted of a three day visit during which there were presentations on the ASME Code, American manufacturing capability and practices, and the steps that would be necessary to bring the desired ASME U and U2 stamps to VNM. During the visit there were tours of the VNM plant to permit a knowledgeable determination of a program that would accomplish the desired goal without a waste of time and the finances of VNM. The program was proposed to VNM after the visit and agreement was reached to meet again in January of 1992 to begin.

To shorten a long story, another company was brought in to help VNM prepare for the ASME accreditation review and to be the Authorized Inspection Agency of record. Two courses on the requirements of the Code were also given. The ASME review was held in January of 1993 and the Certificates awarded on February 12, 1993.

Is the happy end of the story that VNM is now ready to make pressure vessels for Chevron if and when they are asked? No, the ending is happier than that!

Three management people from VNM visited the United States in December of 1992 and had meetings with four companies that were considered potential customers for pressure equipment. These meetings resulted in requests for quotations from two of the companies. Proposals were prepared and submitted and are now outstanding. A surprising aspect of this particular bit of Russian-American Cooperation is that the products will go to neither American nor Russia. The eventual sites of erection are in the Persian Gulf and Singapore.

This shows the real advantages of accreditation and conformity assessment in accordance with an internationally accepted code!



ASME ACCREDITATION AND CERTIFICATION PROGRAMS

ASME is a nonprofit educational, scientific and charitable organization that was founded in 1880. There are over 122,000 individuals members including over 23,000 student members. ASME has no corporate or organizational membership.

The top management body for ASME is the Board of Governors which is elected by the Society membership. There are five Councils under the Board of Governors, one of which is the Council in Codes and Standards. This Council has been delegated all duties associated with the operation of ASME codes, standards, and related accreditation and certification.

ASME accreditation activities are established for the purpose of enhancing the public health and safety in a technological field where a need has been identified and substantiated and where a related ASME code or standard exists and applies to some product or service which is sufficiently related to the public safety or preservation of the environment that the code or standard is, or is expected to be a reference document or requirement of the rules and regulations of some governmental enforcement authority which administers a law applicable to the product or service. For example, in over 45 states, and a number of cities and counties and all the Provinces of Canada, compliance with one or more Sections of the Boiler and Pressure Vessel Code is required by law. Also, government agencies reference the Code in procurement documents.

ASME accreditation signifies that a manufacturer's or supplier's quality program has been reviewed and accepted by the Society as meeting the requirements of the relevant ASME Code or Standard. In the case of items built which are intended to be stamped with an ASME symbol stamp, the stamp signifies that the item was built under a controlled quality program accepted by the Society. ASME accreditation requirements are applicable to new construction and do not cover the performance of the item once stamped and placed in service.

ASME accredits - a manufacturer or supplier certifies. The Authorized Inspection Agency confirms compliance with Code requirements. Accreditation and Certification are words with distinct meanings in the ASME vernacular. In fact, ASME policy states that "the ASME does not "approve", "certify", "rate", or "endorse", any item, construction, or activity...". ASME has however, revised its By-laws to allow direct certification of individuals.

Since October 2, 1972, as a result of a consent decree handed down by the Department of Justice, ASME has made its accreditation activities available worldwide.

ASME currently administers a number of accreditation projects.

Non-Nuclear B&PV Code Accreditation

This project was initiated in 1915 and is based on the requirements of Sections I, IV, VIII Div. 1 & 2, and X of the Code and covers items such as Power Boilers, Electric Boilers, Boiler Safety Valves, Pressure Vessels, Heating Boilers and Pressure Piping. Available to organizations accredited under this program are Certificates of Authorization to use one or more of fourteen (14) Code Symbol Stamps. The stamps consist of a modified cloverleaf with letter(s) in the center. They are as follows:

A	-Field Assembly of Power Boilers
E	-Electric Boilers
H	-Heating Boilers, Steel Plate or Cast Iron Sectional
HV	-Heating Boiler Safety Valves
HLW	-Lined Potable Water Heaters
M	-Miniature Boilers
PP	-Pressure Piping
RP	-Reinforced Plastic Pressure Vessels
S	-Power Boilers
U, U2	-Pressure Vessels
UM	-Miniature Pressure Vessels
V	-Boiler Safety Valves

Currently, there are approximately 7500 certificates issued to 4000 organizations of which 19% are located outside the United States and Canada. The project also includes accreditation of authorized testing laboratories for safety valves and safety relief valves.

Nuclear B&PV Code Accreditation

This project was initiated in 1963 and is based on the requirements of Section III of the Code and covers such things as nuclear components (i.e., vessels, tanks, pressure piping, and pressure relief devices), nuclear materials, and Owner code responsibilities. Available to organizations accredited under this program are Certificates of Authorization to use one or more of four (4) Code Symbol Stamps (nuclear components), Owner's Certificates (related to owner responsibilities), Quality System Certificates (Materials) (related to manufacturers and suppliers of Code material), and Interim Letters (acceptance of quality assurance program). The four Code Symbol Stamps are:

N	-Nuclear Components
NPT	-Nuclear Components Parts
NA	-Nuclear Installation/ Assembly
NV	-Nuclear Safety Valves

Currently, over 30% of Certificate Holders are located outside the United States and Canada.

SPPE Accreditation

This project was initiated in 1978 and is based on the quality assurance requirements of ASME SPPE-1, Quality Assurance and Certification of Safety and Pollution Prevention Equipment Used in Offshore Oil and Gas operations, and ASME SPPE-2, Accreditation of Testing Laboratories for Safety and Pollution Prevention Equipment Used on Offshore Oil and Gas Operations and on the technical requirements of API Standards 14A on Subsurface Safety Valves and API Standard 14D on Wellhead Subsurface Safety Valves and Underwater Safety Valves for Offshore Service. Available to organizations accredited under this program are Certificates of Authorization to use the OCS Symbol Stamp and Certificates of Accreditation (applicable to testing laboratories).

Qualification of Elevator Inspector (QEI)

Certificates under this project were originally issued in 1987. The project is based on ASME QEI-1, Standard for the Qualification of Elevator Inspectors. Certificate Holders in this program are accredited by ASME to certify elevator inspectors and inspection supervisors in accordance with the requirements of ASME QEI-1.

Windows Fabricators for Pressure Vessels for Human Occupancy (PVHO)

Certificates under this project were originally issued in 1989. The project is based on ASME PVHO-1, Safety Standard for Pressure Vessels for Human Occupancy. Certificate Holders are accredited to fabricate windows for pressure vessels for human occupancy. Although this standard covers the whole vessel, accreditation under this program is limited to the window.

Fastener Manufacturers and Distributors

This project was initiated in 1990. This program is based on ASME FAP-1, Quality Assurance Program Requirements for Fastener Manufacturers and Distributors. There is one Certificate Holder holding both types of fastener certificates. The certificates were originally issued in 1991.

Authorized Nuclear Inspection Agencies

The project was initiated in 1992 and the first certificate was issued that year. The program is based on ASME N626, Qualifications and Duties of Authorized Nuclear Inspection Agencies and Personnel. This program has been referenced by the nuclear sections of the Boiler and Pressure Vessel Codes and becomes a mandatory requirement on July 1, 1993.

Reinforced Thermoset Plastic Corrosion Resistant Vessels

The program has just become available in 1993. A number of applications have been received and the first survey is scheduled for mid 1993. The program is based on ASME RTP-1, Reinforced Thermoset Plastic Corrosion Resistant Equipment. The 1992 addenda to this standard added the requirements for accreditation.

ISO 9000

ASME has started preparation to become an ISO 9000 registrar for suppliers of

mechanical equipment and related materials, items and services. The goal for initiation of the program is February 1994.

Certification Projects

ASME has also initiated its first certification project as follows:

Qualification and Certification of Resource Recovery Facility Operators (QRO)

ASME QRO-1, Standard for the Qualification and Certification of Resource Recovery Facility Operators, was approved on November 30, 1989 and issued on March 31, 1990. A program has been developed for certifying chief facility operators and shift supervisors at such facilities. ASME is the certifying agent. Provisional certification is based on meeting specified experience and education requirements and passing a written examination. The first written examination was given on March 28, 1992. Over 600 individuals have been certified. Operator certification will be available to those holding provisional certification, having additional experience and passing a site-specific oral examination. The site-specific oral examination is being developed.

Other Certification Projects

There are also certification projects under development for certification of medical waste incinerator operators (QMO), hazardous waste incinerator operators (QHO), operators of high capacity fossil fuel-fired plants, and qualification and certification of geometric dimensioning and tolerancing professionals (Y14).

**PRESENTATION TO THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**William J. Stuber
Michael F. Sullivan**

The National Board of Boiler and Pressure Vessel Inspectors

Almost 74 years ago, a group of state government officials met to discuss the problems associated with the high frequency and severity of boiler and pressure vessel explosion that were occurring at that time. This meeting resulted in the formulation of The National Board of Boiler and Pressure Vessel Inspectors. The membership of this organization is made up of the Chief Boiler Inspectors of major U.S. cities, states and provinces of Canada whose regulations have adopted the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.

Our purpose then, as it is today, was for the promotion of safety of life and property by securing a concerted action and maintaining uniformity in the construction, installation, inspection and repair of boilers, pressure vessels and their appurtenances; thereby assuring acceptance and inter-changeability among jurisdictional authorities responsible for the administration and enforcement of the various sections of the ASME Code.

The ASME Code is the standard adopted by reference in the laws, rules and regulations of the cities and states of the United States and provinces of Canada, as the means of providing for boiler and pressure vessel safety.

There are several reasons for this standard being widely recognized, used and accepted. Some of them could be the ease of use or the requirement for the use of the independent third party inspector or maybe even the requirement for a quality control program.

Perhaps the most important one is the process by which the standard is developed and maintained. This standard is not developed behind the closed doors of a state or federal government agency or by politicians. It is developed by volunteers, over 800 of them who participate in boiler and pressure vessel standards development in open meetings. Meetings to which any individual member of the public or organization is welcomed to attend and participate in. The voting members represent balanced interests where dominance by any single interest is prohibited. And it should be noted that the ASME volunteers not only encourage the participation and input into the development of ASME standards by representatives of foreign organizations and countries, but they also solicit their input.

This is not to imply that the jurisdictions do not have input into these standards. Indeed, each jurisdiction who adopts and enforces the ASME Code is invited to have representation on the Conference Committee. And there is no reason to believe this would not include foreign jurisdictions who may adopt and reference the ASME Code in their laws, rules or regulations.

Most state and provincial jurisdictions do not have the resources necessary to deal with the complex details of design, and the procedures necessary for fabrication, inspection, and testing, nor for providing for interpretations, nor for fairness in due process in the administration of alleged violations and or complaints.

These attributed in conjunction with mandatory quality assessment procedures and requirements for qualified independent third party inspection, provide high confidence for the user of the safety of products bearing the ASME Code symbol.

The foregoing has addressed the acceptance of ASME standards on the state, provincial and local levels. The United States Federal Government does not preempt state and local regulations. However, our federal government does recognize the value of voluntary consensus standards, and has mandated all federal agencies to review available national consensus standards to determine if they meet their procurement and regulatory needs. Those agencies which have done so have saved their agencies many millions of dollars.

The State and Provincial jurisdictions in adopting the ASME Code have recognized that ACME does not have rules for in-service inspection, repairs and alterations for boilers and pressure vessel. ASME is a standard for new construction. To fill this void and to provide for continued safety and reliability of ASME constructed items, the National Board developed the National Board Inspection Code using the same consensus process as ASME and other major standard developers.

Although many people through out the world, particularly from outside of North America, view ASME and the National Board as one organization, they are not. Both ASME and the National Board are very separate organizations with very different functions and memberships. ASME is responsible for developing and issuing standards, including Boiler and Pressure vessel standard. The National Board is responsible for the enforcement of those standards once adopted by the members jurisdiction.

ASME and the National Board work and cooperate very closely with one another. Indeed the National Board has either members or National Board staff people on almost all ASME committees. The Chairman of the Board of Trustees and the executive Director of the National Board are both members of the Main Committee. The National Board acts as ASME's designee in the assessment of manufacturers' quality control programs of non-nuclear joint reviews.

The National Board Testing Laboratory (NBTL) is accredited by ASME to conduct testing of pressure relief devices in accordance with the ASME Performance Test Code, PT-25.3. This accreditation accepts the facilities, methods, procedures and personnel supervising the test. Manufacturers from North America, Europe and Asia bring their products to the NBTL for testing.

The NBTL is also designated by ASME as the comparative standard for all laboratories to be accredited by ASME. The National Board has evaluated and accepted seven laboratories through this accreditation activity. The NBTL is working with laboratories located in

through this accreditation activity. The NBTL is working with laboratories located in Europe who also are going to be accredited. As a result of these activities the National Board has certified over 1300 safety valve designs worldwide. The National Board is now considering certification of the NBTL in accordance With EN 45001.

To summarize, the National Board believes the following are the advantages of the system used in the United States:

1. The system provides for, and includes involvement of, all organizations having a material interest in the standard.
2. Consensus standards are developed in open forums.
3. Prior to being approved as an American National Standard, they are made available for public review and comment. All opposing views and comments must be resolved.
4. Provision is made for official interpretation for anyone effected by the standard.
5. Procedural Due Process is provided for in the resolution of complaints or alleged violation of the standard.
6. In the case of the ASME Boiler and Pressure Vessel Code and The National Board Inspection Code, requirements are included which mandate the use of independent third-party inspection by qualified inspectors employed by Authorized Inspection Agencies or by qualified inspectors employed by user-owners whose inspection organizations meet the criteria for independence.
7. Avoidance of cost by government agencies to develop their own regulations.
8. Enhanced confidence of consumers, who in specifying equipment to a recognized standard, are assured of it's conformance to specified requirements.
9. Again, in the instance of the ASME Boiler and Pressure Vessel Code and The National Board Inspection Code, the requirement for the use of a Quality Control program which has been shown to be effective by actual demonstration and implementation.

**PRESENTATION O THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**Joe Bhatia
Underwriters Laboratories**

Good morning, again I will keep my remarks rather brief because quite a bit of information about UL and its certification processes has been transmitted to our Soviet friends in the last couple of years with on-site visits and delegation visits. I will focus mainly on the statistical facts which perhaps may be of some interest to you.

The simplest way to describe UL is to tell you that we are a not-for-profit organization which is dedicated to public safety, and we help in bringing safer products to the marketplace. Based on the information that we have, we feel that we may be the largest private sector testing and safety certification organization in the U.S. and perhaps one of the largest all over the globe.

Let me give you some data, and it's not designed to impress you, it's merely designed to give you the breadth and width of the scope of our activities because I understand that your interest and your concerns also range over a wide spectrum of products.

UL is involved in 12,000 product categories and we deal with 140 industry sectors. Every year approximately 8 billion products are certified with the UL certification mark. UL interacts with 40,000 companies located all over the globe. Describing our structure we have approximately 4,300 employees, and they are based at four major U.S. test sites. We are in the process of opening up a new test site in Washington and we have eight local locations and four testing sites.

While the trend in some areas seems to be to get away from testing and rely more on facilitation, we continue to focus on testing as the core of our activity, and to support our goals we have approximately 1.5 million square feet of test space available to us.

We operate in 98 countries, and we have 200 inspection centers located throughout the world which conduct approximately 440,000 inspections every year.

Moving on to a new area of activity, which is the latest trend in international certification and conformity assessments field, is the quality registration of plants. It is not required as part of the UL certification process, but because of demands that are being placed on many of the suppliers by their buyers, plus the developments in the European Community, the need for quality registration has been increasing for the last couple years. UL is now the largest registration services in the U.S.

Many people don't think of UL as a standards writing, but we are one of the top standards writing organizations in the U.S. I think we are sixth or seventh largest in approximately 650 safety standards that are mostly American standards. Based on the recent demand for

globalization, our largest focus in recent years has been to harmonize U.S. product safety standards, which are usually the UL standards, and those of other countries and those of international organizations, like IEC and ISO.

We participate actively in the standards writing organizations committees of 500 organization and 150 international standards forms.

Now regarding the subject of facilitating international trade. To facilitate products between countries, we have developed and actively worked our agreements with foreign counterparts. At this time we have bilateral agreements with 45 organizations in foreign countries which are either the largest trading partners of the U.S. or aspire to be.

We look forward to continuing our dialogue with you, which we started a time back, and we look forward to cooperating with you and assisting you in providing the products between our two nations. Additionally, we are prepared to work with you based on industry needs and demands, to harmonize our standards and codes as well as quality assessment procedures as deemed appropriate. Thank you.

Remarks Made at the Meeting of The
Intergovernmental United States--Russian Business
Development Committee's Standards Working Group

By Frank K. Kitzantides
Vice President Engineering
National Electrical Manufacturers Association

Wednesday, March 24, 1993

NEMA, the National Electrical Manufacturers Association, was formed in 1926. It is comprised of more than 600 member companies, engaged in the manufacture of products in the United States for sale in the open market. Activities include the development of standards, statistical data, government relations, and market development. Its revenues come principally from members dues, but a small percentage comes from the sale of its standards.

NEMA is responsible for about 200 product standards, which describe processes or procedures for manufacturing products, including construction criteria, dimensions, interchangeability, safety, etc. These standards are used in the generation, transmission, distribution, and utilization of electric energy. Many are adopted as American National Standards, and many are adopted by U.S. government agencies, such as the Department of Defense, the Department of Transportation, and the Federal Trade Commission.

NEMA is actively involved in the development of binational standards (with Canada) and is now exploring support for standards harmonization or development of North American standards with Mexico and Canada. The electrical sector has been pursuing joint standards harmonization and conformity assessment activities with the other two countries, and at a meeting in Mexico City in February 1993, officially formed CANENA (Consejo de Armonizacion de Normalizacion Electrotecnica de Norte America) to be the focal point in this area. CANENA will not be a standards developer, but a facilitator to the process. NEMA is very active in CANENA: It currently has the secretariat, and of the eight joint harmonization committees recently established, five are within the NEMA product scopes. Many other trade associations, testing laboratories, and private companies from the three countries are participating, and the number of participants is expected to grow. Hopefully, CANENA will be a counter-balance to CENELEC and with COPANT and PASK will be

influential in the development of international requirements.

Member companies through NEMA are very active in standards development by other U.S. and international organizations, such as Underwriters Laboratories Incorporated (UL), the National Fire Protection Association (NFPA), the Institute of Electrical and Electronics Engineers (IEEE), and the International Electrotechnical Commission (IEC). NEMA is providing the secretariat support for more than twenty-five committees accredited by the American National Standards Institute (ANSI). NEMA's policy with regard to international standards is very simple: Let the marketplace decide the extent of adoption. Of the seventy NEMA product sections (each section is a separate and distinct industry) more than fifty percent are very active in the work of over fifty IEC Technical Committees and Subcommittees. The NEMA Diagnostic Imaging and Therapy Systems Division, which Mr. Phil White of the FDA mentioned yesterday, is very active in the development of international standards. As a result of its activity, NEMA has adopted an IEC standard, Publication 601-1, and will submit it for adoption as an American National Standard.

NEMA is not currently operating any certification programs, but was very instrumental in assisting the National Institute of Standards and Technology (NIST) in establishing a laboratory accreditation program for lighting products, lighting fixtures and lamps in particular. Our members are very active in helping set the requirements for safety certification by UL Standards for products requiring third party certification. NEMA actively participates in the IEC safety type-testing program known as IECEE. I am personally involved with two recent IEC certification activities: (1) the expansion of the IECEE into a full certification scheme, and (2) an international accreditation program for ISO 9000 (International Standards Organization) registrars.

In closing I hope these brief remarks give you a brief glimpse of the breadth of my association's standards and conformity assessment activities. The packets I left with you include more detailed information on many of our programs and services.

Thank you.

**PRESENTATION TO THE INTERGOVERNMENT U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**John Kinn
Electronic Industries Association**

The Electronic Industries Association (EIA) is what is known as a trade association, in the United States. In addition to standards, we have a staff of lawyers, who lobby on behalf of our member companies to our Congress and the agencies here in Washington, D.C. Our membership is not individual, but companies. It is only comprised of companies. There are about a thousand companies that are members of EIA in the electronics area.

The companies determine the direction we need to go. For example, we collect market information from our companies on a daily, weekly, and monthly basis, and then we analyze that data and present it to our member companies so they have an accurate form what the market force would say about a particular component.

From an organizational standpoint, we have divisions representing products that are manufactured by our member companies. The technologies that are involved may be multi-disciplined in each of the divisions. The standards activity reports to the Board of Governors of EIA. EIA also has an affiliate called the Telecommunications Industry Association, TIA.

We are involved in the standards development from telecommunications, consumer electronics, components, etc. across the board, but we are involved predominantly in product areas, not necessarily in systems. So you will see a synergy between what a trade association such as EIA does and what a professional society such as IEEE does. We have been developing standards within EIA and its former organization RMA for almost 70 years now. We were started in 1925 when we were part of what was called then the Radio Manufacturers Association. The first committee that was formed by the Board of the Radio Manufacturers Association was a standards committee. Standards in those days involved the vacuum tubes for radio receivers, vacuum tubes for radio transmitters, the chassis, the components that were used in the manufacture of radios and the cases, the cabinets that were used for encasing the radios.

In '44 we created an organization called JETEC, Joint Electronic Tube Engineering Council jointly with NEMA whom you will hear from next. And the reason for that was that both of our organizations had a large interest in vacuum tubes at that point in time. In 1945 we formed what was called the Radio Technical Planning Board, and this was a joint activity between industry and government to affectively make use of the frequency spectrum, among other things. Then in 1948 we formed an organization called the Joint Technical Advisory Committee to the Federal Communications Commission, FCC. You will note that then we joined with the IRE, a predecessor organization to the IEEE.

A question was raised earlier by our colleagues about electromagnetic compatibility. What happens in the United States is that an organization like JETEC will be formed and will write the regulations as a joint activity between industry and present that to the government agency. The government agency then will adopt that as a regulation, as, for example, part 15 or part 65 of the FCC regulations, and we will then resolve. We will not publish a standard in that area because the regulation now exists. So there has been cooperation over the years between industry and government. In 1948 we also created a committee that looked at the National Television Systems Act that formalized the national television system that was used in the United States. Unfortunately that should be 1938 not '48. But that shows you how old the television system is in the United States.

Then in 1950 it became apparent that our manufacturers had to look outside of the United States and look at the marketplace which was becoming an international marketplace. On that basis we then created an international standards committee which had then expanded into sort of a governing body within the EIA to handle our support of the IEC activities.

In the 1970s we expanded our semiconductor activities and created the Joint Electronic Device Engineering Council, again jointly with NEMA. Also we are the prime mover in the creation of the IECQ system within the United States because of the evolving SECC activities in Europe which were acting as non-tariff trade barriers against U.S. manufacturers. The IECQ still exists and offers a lateral playing field for our manufacturers to do business in the international arena.

I hope I gave you a little flavor of the kinds of activities we are involved in. Very briefly, from a standardization point of view we look at the function of the product. We have added quality assurance to our specifications that specify that form will function. The documents we publish are either standards or specifications or guides or bulletins or workshop procedures.

Our job is to minimize the cost of manufacturers doing business. Therefore, while we say one stop shopping, what we mean is, we will eventually want a system whereby the manufacturer goes to one place and gets all the certification he needs in the quality area, ISO 9000, IECQ and even NECQ our national system quality performance.

We have a quality registry and then this program will be the quality registry program of ISO 9000. The other programs are audit programs dealing with the Department of Defense, supplier audits areas, and dealing with product certification under our national process standards. You can see the relationship then between ASEQ as the accreditation body in the United States and this body ECCB which deals with the IECQ body which is called the Electronic and Certification Board that is the body responsible for IECQ activities in the United States.

We are in dialogue with organizations such as AT&T, UL, INTERTEC, etc. and we are now about 98 percent complete with our negotiations with AT&T and that will also include an accreditation of the EIA registry by the RBC. This negotiation with AT&T also allows us to now become accredited by the RBC in the Netherlands.

Finally, we have created an accounting industry Quality Council, because we recognize that we are not alone in this area, and we need to have coordination and dialogue and so we have approached a number of these organizations to join this council. It is a forum for people to get together and discuss problems and try to recommend solutions to those problems in the area of quality assurance.

We are in the process of putting together package for you back in Russia rather than having you carry them with you now. As your companies evolve, especially in the electronics area within Russia and the CIS we welcome your participation in our activities. We do have membership from both European and Japanese companies on our committees, on our standards development committees, SIEMENS, PHILIPS, etc. so, there is no inhibition or no restraint on participation, other than you must be marketing something here in the United States. Thank you.

EIA

ENGINEERING ACTIVITIES

SUPPORTING THE GROWTH

OF THE ELECTRONIC INDUSTRY

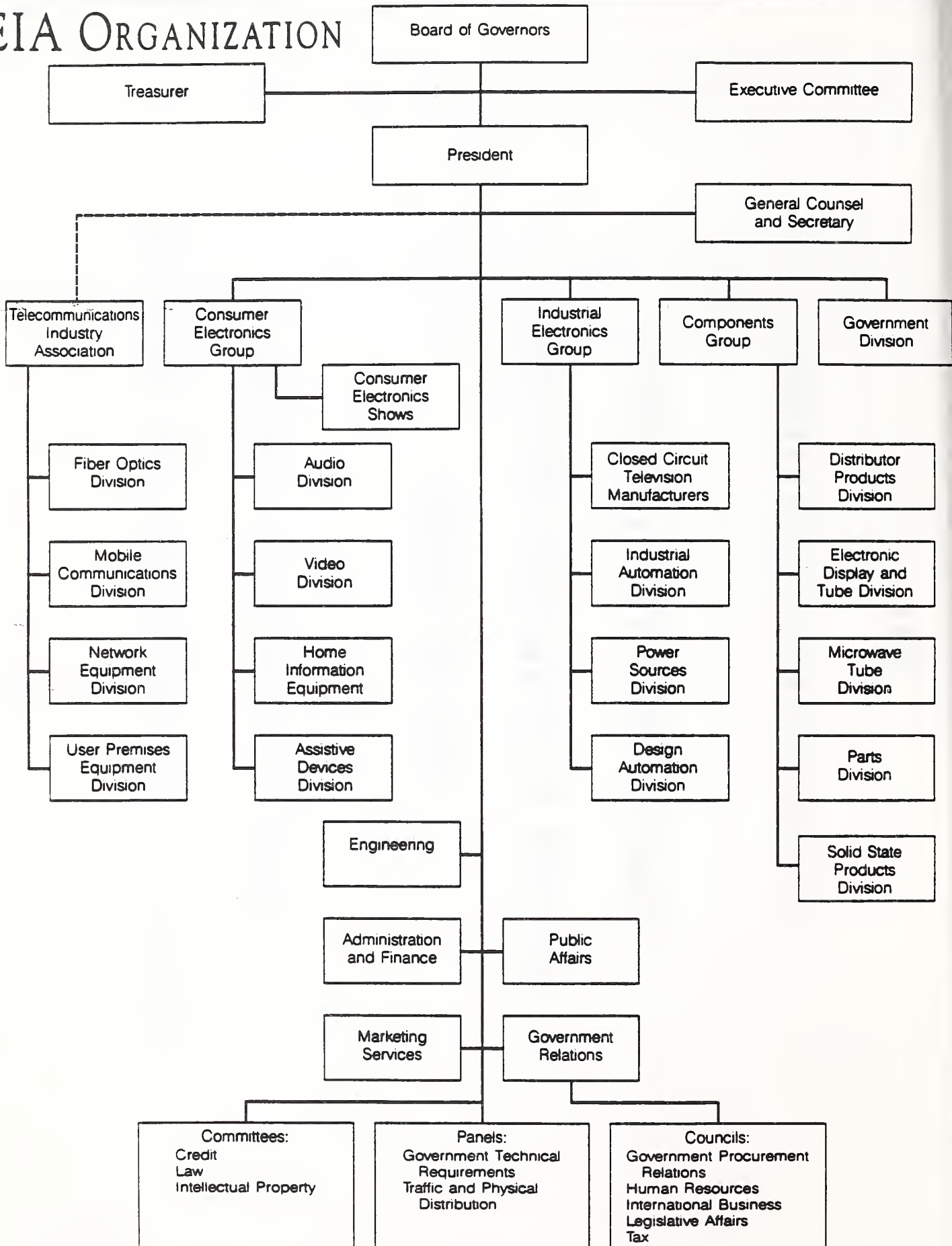
FOR 65 YEARS

EIA'S OLDEST AND MOST

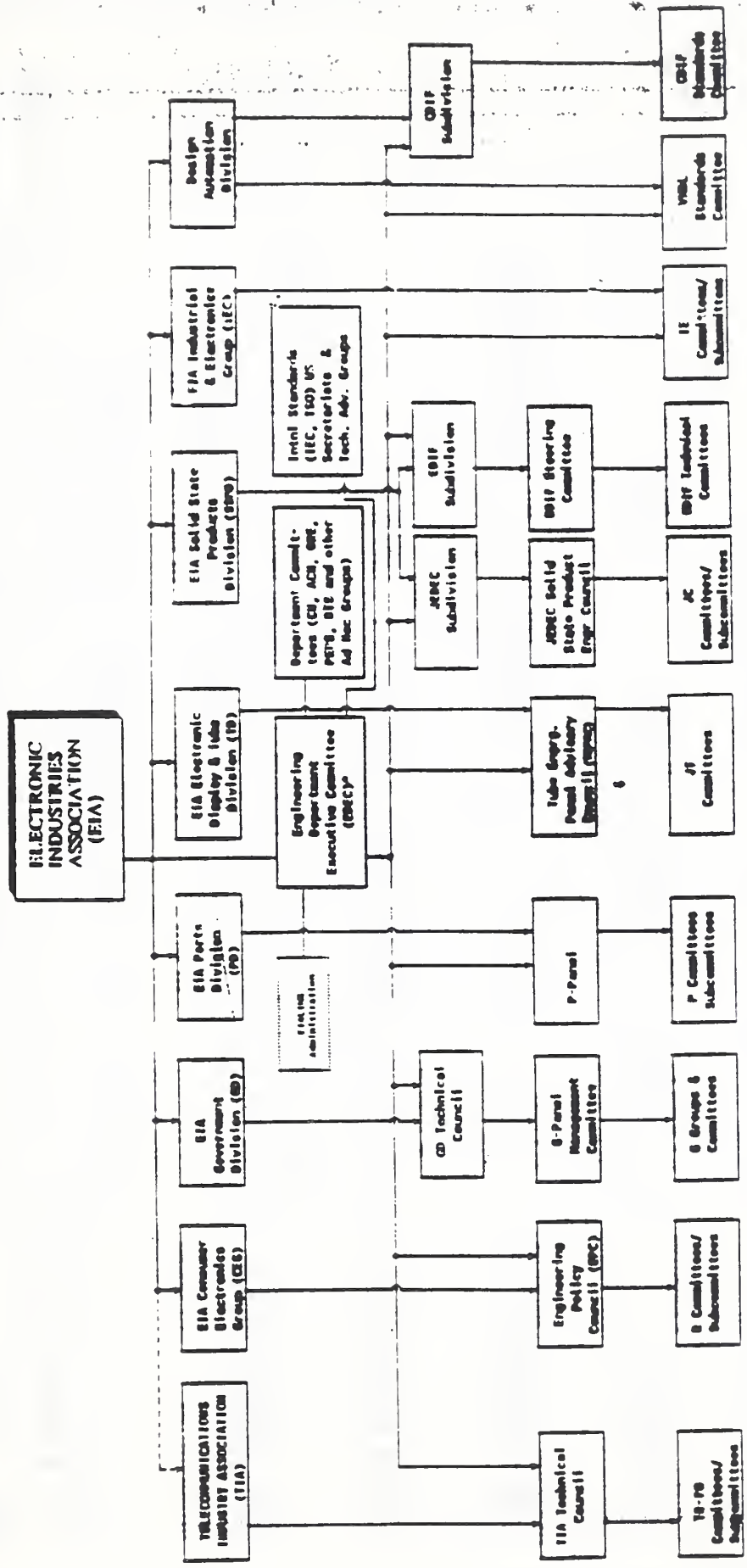
WIDELY USED MEMBERSHIP SERVICE



EIA ORGANIZATION



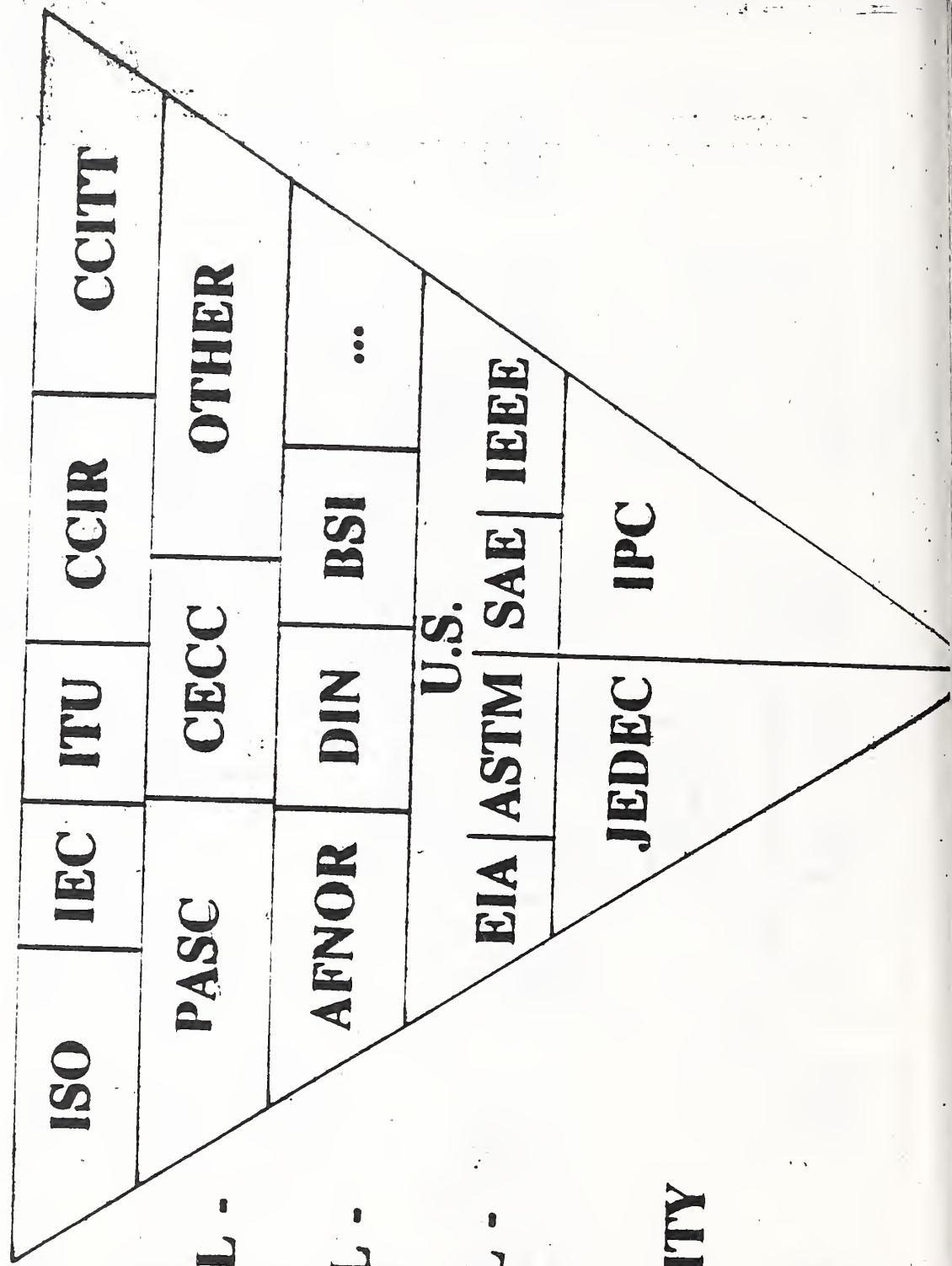
ENGINEERING DEPARTMENT ORGANIZATION



*Note: EIA divisions provide project direction and direct funding support to the various Panels in accordance with EIA By-Law 3.E.(2), which provides that EIA divisions shall refer engineering matters to the Engineering Department. Responsibilities of the EDC in providing an advisory and coordination function for the Engineering Department are outlined in Section 2.0 of Appendix A, the EDC Charter, in EP-1.

STANDARDS HIERARCHY

MARKET



INT'L -

REGIONAL -

NATIONAL -

NATIONAL -

COMMODITY

SECTOR



BRIEF ENGINEERING DEPARTMENT CHRONOLOGY

- 1925 - **STANDARDS COMMITTEE WAS THE FIRST COMMITTEE TO BE CREATED BY RMA TO WORK ON RADIO COMPONENTS**
- 1938 - **FORMED DATA BUREAU TO COLLECT DATA ON PERFORMANCE CHARACTERISTICS OF RADIO RECEIVERS**
- 1944 - **FORMED JETEC (WITH NEMA)**
- 1945 - **FORMED RTPB**
- 1948 - **FORMED JTAC (WITH IRE)**



- 1948 - FORMED NTSC
- 1950 - FORMED INTERNATIONAL STANDARDS COMMITTEE - IEC
- 1960'S - PRODUCED SEMINARS
- 1970'S - EXPANDED SEMICONDUCTOR ACTIVITIES - CREATED JEDEC CREATED IECQ
- 1980'S - MULTI-CHANNEL TV SOUND AM STEREO
- JOINT EIA/EIAJ ACTIVITIES



TECHNICAL COMMITTEE ACTIVITY

- STUDIES/TEST PROGRAMS
- PANEL LEVEL PUBLICATIONS
- INTERIM STANDARDS
- EIA STANDARDS & SPECIFICATIONS
- NATIONAL STANDARDS (ANSI, NECQ)
- REGIONAL STANDARDS (NORTH AMERICA)
- INTERNATIONAL STANDARDS (IEC/IECQ, ISO)



EIA ENGINEERING THRUSTS

- - **STANDARDIZATION**
 - + **CLASSIC FORM, FIT, AND FUNCTION**
 - + **RECENTLY ADDED QUALITY ASSURANCE**
 - + **BOTH COMPONENTS AND SYSTEMS**
 - + **BOTH NATIONAL AND INTERNATIONAL**

- - **DOCUMENTATION**
 - + **STANDARDS/SPECIFICATIONS**
 - + **PUBLICATIONS - GUIDES**
 - BULLETINS (TEMPORARY)**
 - WORK SHOP PROCEEDINGS**

- - **MOVING TOWARD INTERNATIONAL AND IECQ**



THROUGH INDUSTRY CONSENSUS PROCESS

- COMMITTEE WORK/BALLOT
- STANDARDS PROPOSAL BALLOTS
- ENGINEERING DEPARTMENT EXECUTIVE COMMITTEE BALLOTS
- ANSI BALLOTS
- IEC/IECQ BALLOTS
- ONE COMPANY - ONE VOTE



TECHNICAL COMMITTEE ACTIVITY

- STUDIES/TEST PROGRAMS
- PANEL LEVEL PUBLICATIONS
- INTERIM STANDARDS
- EIA STANDARDS & SPECIFICATIONS
- NATIONAL STANDARDS (ANSI, NECQ)
- REGIONAL STANDARDS (NORTH AMERICA)
- INTERNATIONAL STANDARDS (IEC/IECQ, ISO)



INTERNATIONAL COOPERATION
SUPPORTED BY EIA (i.e., US TECHNICAL ADVISORY GROUPS)

- TC-12 RADIO COMMUNICATIONS (Subcommittees include microwave, cable TV, mobile equipment, receivers, transmitters, etc.)
Consumer
- TC-39 ELECTRON TUBES
Tubes
- TC-40 CAPACITORS & RESISTORS
Parts
- TC-41 ALL-OR NOTHING RELAYS
Parts
- TC-46 WIRE & CABLE (Subcommittees include Waveguide, RF Cables & Connectors
Parts
- TC-47 SEMICONDUCTOR DEVICES, MICROCIRCUITS (12 Task Groups)
SSPD
- TC-48 ELECTROMECHANICAL COMPONENTS (Connectors, Switches, Racks & Panels)
Parts
- TC-49 PIEZOELECTRIC DEVICES
Parts
- TC-50 ENVIRONMENTAL TESTING
All
- TC-51 MAGNETIC COMPONENTS & FERRITE MATERIALS
Parts
- TC-56 RELIABILITY & MAINTAINABILITY
All
- TC-60A SOUND RECORDING
Consumer
- TC-75 CLASSIFICATION OF ENVIRONMENTAL CONDITIONS
All
- TC-76 LASER EQUIPMENT
Industrial Elect
- TC-84 AUDIO/VIDEO EQUIPMENT, SYSTEMS & ENGINEERING (includes Infrared)
Consumer
- TC-86 FIBRE OPTICS
Fiber Optics
- TC-91 SURFACE MOUNTING TECHNOLOGY
All
- JTC-1 IEC/ISO JOINT COMMITTEE ON INFORMATION TECHNOLOGY
Consumer
- TC-184 ISO COMMITTEE ON NUMERICAL CONTROL OF MACHINES
Industrial Elect
- CISPR INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE (Radio Receivers)
Consumer, Parts, Tubes

Electronic Industries

Association Quality

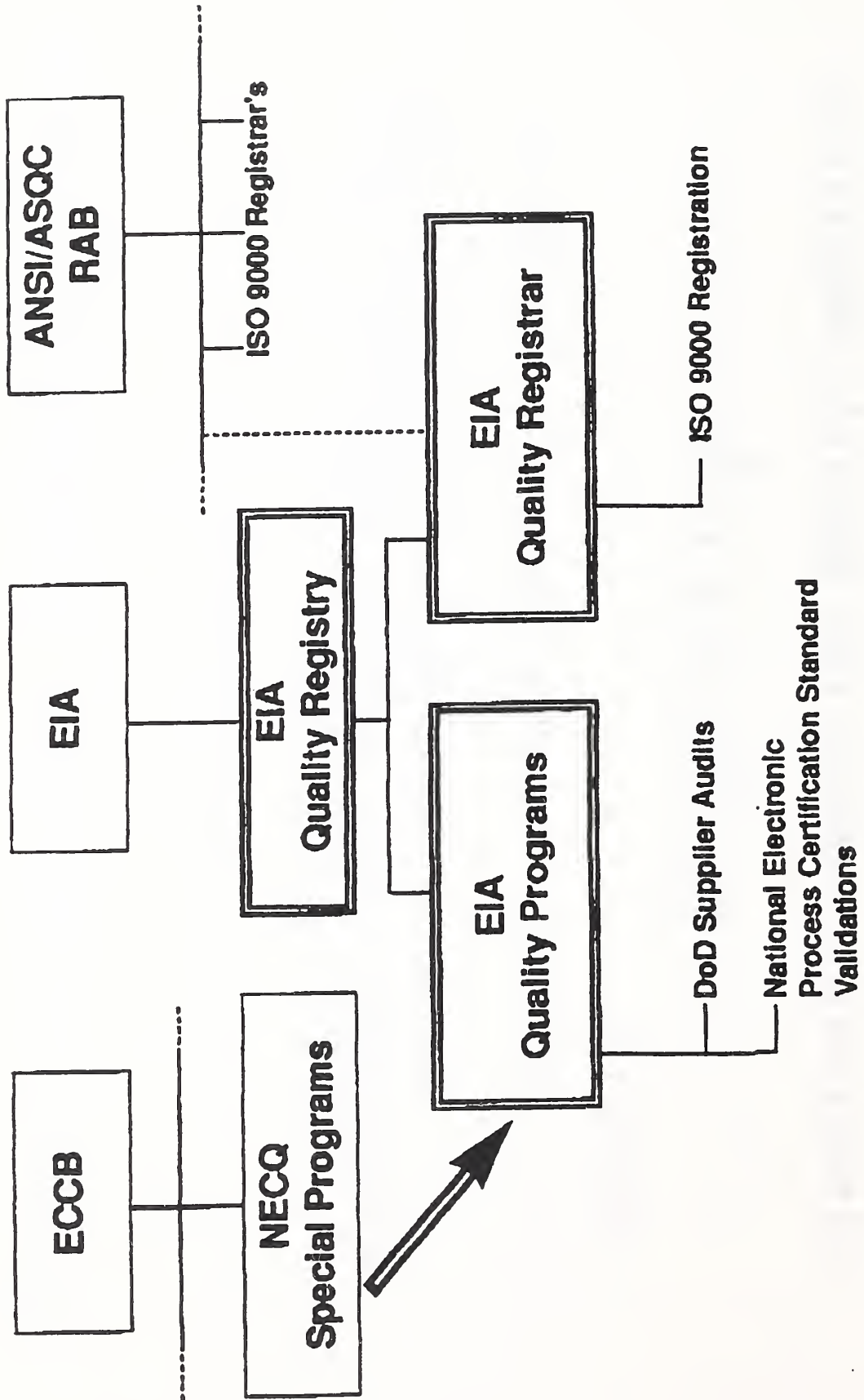
Registry

Electronic Industries Quality Registry

Objective:

Facilitate "One-Stop-Shopping" in support of electronic industries manufacturers' and suppliers' quality system needs.

Electronic Industries Quality Programs



Electronic Industries Quality Registry

- o ELECTRONIC INDUSTRIES EXECUTIVE BOARD
- o PURPOSE
 - Define and assure adherence to EQR policy
 - Provide management and organizational structure for Electronic Industries Association supported Quality Systems Programs.
 - Provide representation on the Electronic Industries Quality Council
- o MEANS
 - Executive Board consisting of representatives of EQR participants.
 - Oversight of all EQR program technical & financial performance.
- o INTERIM CHAIRMAN
 - Bob Lackland, TI DSEG
- o EXECUTIVE BOARD MEMBERS
 - Commercial & Mil electronic product users & manufacturers

Electronic Industries Quality Registry

0 PROGRAMS

- Electronic Industries Association Quality Registrar
 - ISO 9000
- Electronic Industries Association Quality Programs
 - Commercial and Military Initiatives
 - Programs
 - Supplier management
 - Seminars/Education
 - Certification
 - Industry Improvement
 - Process Certification
 - Unique Initiatives
 - User Needs

Electronic Industries Quality Registry

ISO 9000 PROGRAM

CONCEPT

- EIA attain accreditation as an ISO 9000 Registrar for electronic and electronic related industries

APPROACH

o PARTNERSHIP

- EIA provide registration in conjunction with existing accredited registrar(s)
 - Capitalize on existing strengths
 - Align with preferred provider
 - Accept registration from all accredited and EIA approved registrars
 - Dialogue with AT&T, UL, Intertech, +

o ACCREDITATION W/

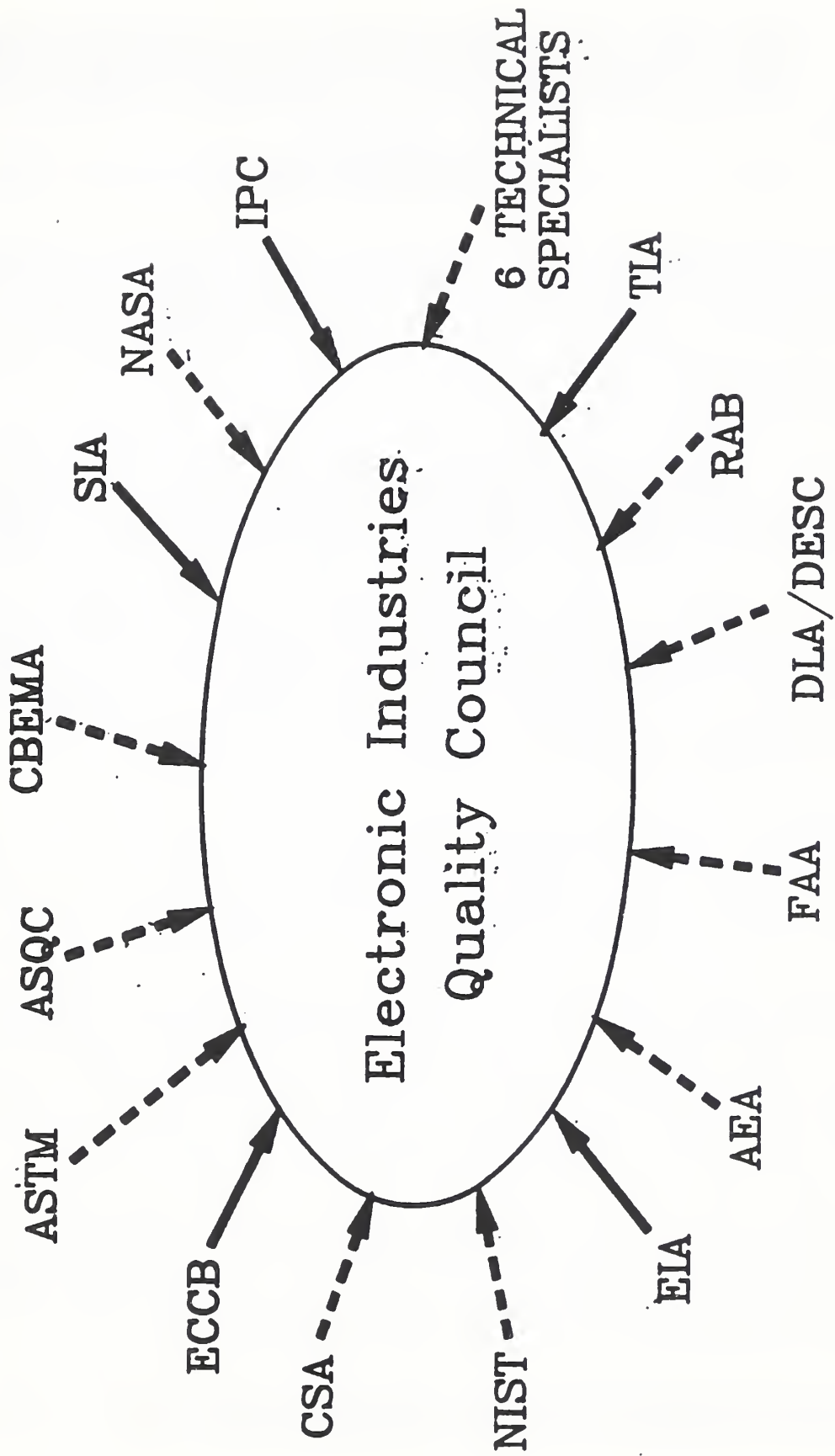
- RVC (Netherlands)
- RAB (U.S.)
- +

Electronic Industries Quality Council

Mission:

To promote the deployment of a North American quality assessment system which is internationally recognized and serves the needs of all segments of the electronic industries and their customers.

ELECTRONIC INDUSTRIES QUALITY COUNCIL



**PRESENTATION TO INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**David Soffrin
Edison Electric Institute**

I am David Soffrin, the Director of Engineering and Standards for the Edison Electric Institute located in Washington, D.C. The Edison Electric Institute is a trade association for the electric utilities industry here in the United States and is dedicated to helping its member companies assure their customers the utilities a viable economic, environmentally sound supply of electricity.

Analysis is something that we share with our counterparts here today. The Institute's member companies generate approximately three quarters of the electricity here in the United States. In addition, EEI has a growing number of international affiliates located all over the world. These affiliates participate in any of the information exchange activities.

As a trade association, EEI's mission is to lead, represent, and serve the utility industry through programs of information exchange, implementation of new technologies and advocacy of public policies which foster an adequate, reliable, secure and economic supply of electricity. Another of EEI's functions is to facilitate the utility industry's participation in the development of domestic and international standards affecting the engineering, operating, safety and health aspects of the electric utility industry.

Engineering standards design and test requirements for the many products used in the generation, transmission, distribution and metering of electrical energy. As many other U.S. industries are now experiencing, the U.S. utilities are purchasing an increasing number amount of heavy electrical equipment of EEC and Japanese origin.

Harmonization of U.S. and international standards is one element necessary to assure that equipment will be available to our industries and utilities which is compatible with their systems and allow them to continue to maintain their system's reliability and the needs of their customers. Operating standards will assure that consistent and reproducible test methods are available to ensure that the electric system operates as designed. Safety standards ensure the safety of both utility employees and the general public.

The IEEE, National Electrical Safety Code, and the NFPA National Electrical Code produce standards which are developed under the voluntary consensus process and are subsequently adopted as mandatory requirements in most jurisdictions of the U.S. The utility companies participate heavily in the development of both of these documents and is committed to the safety of its employees and the general public.

Health standards address things such as, nuclear exposure limits for power plant workers, and protective equipment for employees working on electric lines.

Unlike many of the organizations represented here today, the Edison Electric Institute is not a standards developer. It does, however, represent a significant number of users. Further, our industry's ability to participate in the development of American national standards through member-company participation is testimony of the open, voluntary consensus standards development process which we enjoy here in the United States.

I would like to leave with the delegation some information on the Institute. I understand that several EEI representatives have already met with representatives of the Russian utility industry, and we welcome the opportunity to work more closely with our Russian counterparts.

We have an expression in the utilities that the watt hour meter is the cash register of the company. As Russia moves to a market-based economy I would like to present you with a copy of a book recently published by the Institute on Electricity Metering. This book was originally published in 1912 by the EEI's predecessor organization and updated several times. It represents the collective knowledge of the manufacturers and the utilities in the United States. I believe that your colleagues in the utilities will find the process of rate making, billing and collection an interesting process.

Let me close by saying that these meetings not only point out our differences but provide unique perspectives and opportunities for us to find common cause and we welcome that.

**PRESENTATION TO THE INTERGOVERNMENT U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**Jack Langmead
Gas Appliance Manufacturers Association**

Thank you, Stan, for the opportunity to be here to address our Russian colleagues. GAMA is a manufacturers' trade association much like referred to and discussed by others. We represent the manufacturers of residential, commercial and light industrial gas utilization equipment. Our members are located throughout the world. They produce gas appliances in the United States. One of our major furnace and water heater manufacturer's headquarters is in Japan. Another major water heater manufacturer's headquarters is in Australia. One of the major control manufacturers is headquartered in London. Three of the major control manufacturer's in Europe have headquarters in the United States. So we deal in a global market.

The North American market for residential gas appliances is by far the largest market in the world. I passed out some statistics that give you the amount of sales of gas equipment, residentially by year, for the last ten years. You will note that water heating equipment sells currently at a rate of 4.5 million units a year in the United States alone. For central heating equipment, we sell almost 3 million units a year in the United States. For little room heaters, that will keep a room warm, we sell about a half a million units in the United States. We also have a market in Canada, which represents some 12-15 percent in addition to the statistics you have for Canada. So it is a large market.

GAMA as an organization does not develop standards itself, but we participate at the standards development, developing table of others [?.] process that we use extensively. We also work with UL, FDA and others.

Standards, both safety and efficiency standards, are critical to our industry. Gas appliances can cause fires, gas appliances improperly installed, improperly built, and improperly maintained can have what we call "a delayed ignition" or rapid exchange of gas. Others call that an explosion. If improperly installed, they could produce carbon monoxide and accidents. We have to be very conscious of safety in our market. The market has grown to this point because we are.

Our standards for gas appliances date back to the gas light days of 1890. There are over 80 standards in existence, and I will, after this meeting, make arrangements to have all those standards made available

In summary, our voluntary standards developed through the process limit the need for inflexible government regulations of the products we build. We have no federal safety regulations on gas appliances. We do have some federal efficiency regulations.

In regard to efficiency of residential gas equipment in the area of central heating equipment prior to 1985, the average efficiency of equipment sold in the United States was about 60 percent. As of last year the average efficiency of central heating equipment is over 80 percent. If you check with what they sold in the European Economic Community, I think you will find that's not quite up to our standards.

In the area of international standards, GAMA holds the secretariat for ISO TC 161 for public standards for gas controls, and we work through NEMA to provide input into IBCTC 72 covering electrical appliance controls.

In regard to regional and North American standards, the gas industry is set up for technical self-committees to develop safety standards. They have joint Canadian/US representations. We sit at the same table and develop the Canadian safety standards and the U.S. safety standards at the same time, with the same people and process them through our own independent processors. In addition, the American Gas Association Laboratories, which is a principal third party testing agency for gas appliances, and the Canadian Gas Association Laboratories just recently announced a joint agreement where you can get a single test at either one of the agencies and get approval as to being in compliance to both U.S. and Canadian standards.

In regard to the North American Free Trade Agreement at this exact moment in time there is a gas industry delegation in Mexico City trying to bring the Mexicans into our joint U.S./Canadian standards development system. Hopefully, that will be successful.

Since Russia commands about 50 percent of the natural gas available in the world, I would think that you would want to rapidly expand your gas distribution systems and residential, commercial and light industrial use of that energy source. A way to get that process initiated as soon as possible would be to first accept the American national standards covering gas appliances as complying with Russian safety regulations. They've proven these safety regulations here. Our fuels are very [?]. Number two I would suggest considering accepting ANSI accredited, third-party conformity assessment decisions made by organizations such as [?], UL or ECO in this country. This would immediately open markets for products in Russia. As the products start to sell, they will start to be produced over there.

In closing, I would hope that a Russian delegation of gas engineers will be able to come to the U.S. and study our gas appliance safety and certification systems. If I can be of any help in arranging and organizing such a delegation, I wish you would please let me know.

In closing I would hope that a Russian delegation of gas engineers will be able to come to the U.S. and study our gas appliance safety and certification systems. If I can be of any help, in arranging and organizing such a delegation, I wish you would please let me know.



STATISTICAL HIGHLIGHTS

GAS APPLIANCE MANUFACTURERS ASSOCIATION, INC.

1901 North Moore Street • Arlington, Va. 22209 • 703/525-9565

TEN YEAR SUMMARY, 1983-1992

DIRECT HEATING EQUIPMENT

	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
WALL FURN.										
VENTED										
Natural	77,766	80,160	84,900	93,180	92,440	92,630	112,640	N/A	N/A	N/A
LP	10,251	10,400	11,160	12,530	15,430	13,110	15,280	N/A	N/A	N/A
TOTAL	88,017	90,560	96,060	105,710	107,870	105,740	127,920	138,710	123,230	119,880
DIRECT VENT										
Natural	31,422	31,080	31,290	37,910	36,250	33,770	40,920	N/A	N/A	34,430
LP	27,914	25,680	23,580	29,790	29,080	27,030	28,090	N/A	N/A	14,000
TOTAL	59,336	56,760	54,870	67,700	65,330	60,800	69,010	67,720	56,080	48,430
FLOOR FURN	15,220	15,225	18,042	18,477	20,300	19,704	21,874	22,085	20,825	18,775
ROOM HEATERS										
Vented	59,271	57,082	72,081	87,314	91,426	90,564	92,475	84,612	77,902	63,542
Unvented	232,767	212,570	245,694	217,566	202,161	177,105	188,936	198,357	177,940	139,280
TOTAL DIRECT HEATING EQUIP.	454,611	432,197	486,747	496,767	487,087	453,913	500,215	511,484	455,977	389,907

WATER HEATERS

	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
GAS-FIRED										
Natural	3,883,209	3,619,318	3,625,620	3,845,259	3,674,255	3,672,746	3,485,304	3,302,898	3,281,086	2,953,375
LP	358,136	317,147	280,644	285,210	282,214	277,938	243,475	226,033	220,967	218,692
TOTAL	4,241,345	3,936,465	3,906,264	4,130,469	3,956,469	3,950,684	3,728,779	3,528,931	3,502,053	3,172,067
ELECTRIC	3,398,605	3,169,965	3,226,321	3,369,108	3,333,490	3,396,395	3,389,150	3,452,283	3,480,845	3,131,017

CENTRAL HEATING EQUIPMENT

GAS-FIRED										
Furnaces (Forced-Air)	2,106,898	2,056,670	1,950,465	2,162,185	2,092,165	2,072,925	2,104,805	1,822,295	1,849,200	1,661,800
Boilers (Steam & Hot Water)	178,988	183,903	204,004	191,803	211,320	189,662	196,022	192,455	179,870	147,700
ELECTRIC										
Furnaces (Elec. Resistance)	290,407	245,161	279,964	298,228	293,095	375,055	382,590	366,020	354,435	339,950
Boilers	228	273	271	*	341	469	512	N/A	634	663
OIL-FIRED										
Furnaces	141,045	131,245	138,455	178,980	203,785	206,445	200,540	147,260	148,025	127,305
Boilers	106,208	94,324	112,069	129,975	144,204	134,714	125,606	103,527	90,586	82,622
TOTAL										
CENTRAL HEATING EQUIPMENT	2,823,774	2,711,576	2,685,228	2,961,171	2,944,910	2,979,270	3,010,075	2,631,557	2,622,750	2,360,040

COMMERCIAL EQUIPMENT

	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
WATER HEATERS										
GAS-FIRED										
(Including Swimming Pool Heaters)	103,386 (a)(b)	91,143 (a)(b)	98,872 (a)(b)	106,401 (a)	108,682 (a)	211,466	198,304	191,848	199,671	175,998
ELECTRIC	22,646	19,768	20,121	19,768	18,995	18,361	18,174	19,240	20,845	18,357
GAS										
UNIT HEATERS	130,884	135,747	157,926	184,263	169,605	164,040	164,863	184,188	164,743	122,020
GAS										
DUCT FURNACES	15,144	14,758	16,112	20,158	18,002	18,629	20,108	20,870	19,703	16,912

(a) Does not include Swimming Pool Heaters therefore comparison cannot be made
 (b) Does not include copper tube or coil type commercial water heater
 * Not available due to possible disclosure
 N/A Not Available

**PRESENTATION TO INTERGOVERNMENT U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEE'S STANDARDS WORKING GROUP**

**Thomas Searles
American Lumber Standards Committee**

The Committee that I work for, the American Lumber Standards Committee, is appointed by the Secretary of Commerce of the United States. Its responsibility is to write the standards for lumber which consists of sizes, nomenclature, inspection and labelling of lumber. It also has two other responsibilities. One is to elect a national committee that collects national specifications for soft wood lumber and to elect an accreditation board.

In the past few months we have had numerous inquiries from brokers and companies in Russia concerning the importation of lumber into the United States from Russia. The standards that you have before you has the sizes from which all soft wood lumber is made. It is important to understand that about 70 percent of the consumption in the United States is made to only five of those sizes. Also the standard code has approximately 51 soft wood species, and in 1992 the consumption in the United States was about 65 million cubic meters. About a third of that came from Canada.

This board approves the grading for those 51 species that I mentioned. Part of the problem in recognizing foreign species is the determination of design rights or the strength of those woods. Our policy permits accepting wood from anywhere in the world if they meet the criteria by which the domestic wood is required to meet. The criteria, simply stated, are ASTM standards that have been found appropriate by NIST. Those standards provide for testing of woods from any location in the world. The acceptance of lumber in the United States by various building codes requires that it be labeled. You have before you copies of the various labels which would appear on lumber.

There are 19 agencies that are accredited by the Board, and there is a system for approving those agencies and monitoring those agencies to see that they continue to perform.

There have been numerous inquiries about how to get certification labels under the U.S. system. I would be glad to explain them in as much detail as you would like in order to know exactly how to do that.

**PRESENTATION TO THE INTERGOVERNMENTAL U.S.-RUSSIAN BUSINESS
DEVELOPMENT COMMITTEES STANDARDS WORKING GROUP**

**Rollinde Prager
National Sanitation Foundation**

Thank you. I promise to be extraordinarily brief. NSF which stands for the National Sanitation Foundation is a private, independent, not-for-profit organization and is considered to be the leading certifier of public health and environmentally-related products.

NSF develops and maintains voluntary standards using a consensus procedure which involves all parties that are interested. We put in regulatory bodies, users, as well as producers.

NSF is particularly well known for its work concerning drinking water safety, and it evaluates and certifies everything from water treatment chemicals to pipes in residential dwellings. NSF standards 60 and 61 concerning drinking water safety are American national standards and certified by the American National Standards Institute.

In addition to standards activities, NSF provides informative assessments through established programs, evaluations and testing. These include such things as toxicological assessments, product certification, facilities components audits, and follow up testing of water which are considered evidence of continued standards compliance.

In addition to NSF programs and services is the registration of quality systems to the ISO 9000 document. As Dr. Warshaw said the President of NSF at the first meeting has given a really comprehensive presentation of our activities, so rather than drawing it further, I will leave you with some information to take back with you concerning NSF. Thank you.

United States Department of Commerce (DOC)
Russian Ministry of Foreign Economic Relations
(MFER)
Intergovernmental U.S. — Russia Business
Development Committee
Standards Working Group

**The materials of the 1-st working group
meeting on standardization, metrology
and certification.**

(Reports of Russian delegation)

St. Peterburg, Russia
8 — 9 September 1992.

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INTRODUCTION

Attached below are the proceedings of the 1-st meeting of the Standards Working Group of the Intergovernmental Russian-American Business Development Committee, which are presentations and summaries of participants at the meeting on behalf of Gosstandart of Russia and other Russian organizations. The presentations cover a wide range of problems such as the harmonization of the Russian standards system with national systems of countries with developed market economy, normative support of consumer rights protection, certification and quality of food products and drinking water, information support, sanitary norms and requirements, etc.

The main purpose of all proposed publications is to update American specialists with our domestic practice in the interests of further development of cooperation between the appropriate agencies and organizations of U.S. and the Russian Federation including cooperation in the field of elimination of technical barriers in trade.

FEDERATION AND ITS HARMONIZATION WITH THE NATIONAL STAND- ARDIZATION SYSTEMS OF COUNTRIES WITH DEVELOPED MARKET ECONOMY.

Smirnov V.N.,
Vice-Director
of VNIISTandardization
Moscow

The national system of standardization which is being created in Russia nowadays, proceeds from two principal propositions at present:

1. The reform of the country's economy on the base of market relations.
2. The recognition of benefits of the economic integration both with countries which have formed the part of the USSR before and other countries of the world.

Thus, the main trend of the system may be formulated as follows :

The national system of standardization should promote economic reforms being put into practice in this country. It should ensure the balance of interests of Russia as a sovereign state and the competent participant of European and world-wide integration processes.

The effective means of realization of such a provision is the harmonization of the national standardization system of Russia with international and regional standardization systems and with national standardization systems of countries with developed market economy as well.

The following main objects of standardization in the Russian Federation are established in the first standard of the system:

- protection of states' and consumers' interests in the field of quality of goods, services and fabrication processes, ensuring of life - saving, health and property safety, and environmental protection;
- ensuring of production compatibility and interchangeability;
- removal of technical barriers in the field of production and trade;
- ensuring of competitiveness of goods at the world market and of effective participation of Russia in the international division of labour.

These objects of standardization answer the purposes of international, regional and national systems of standardization in developed countries.

The following propositions represent the principles of national standardization system of Russian Federation :

place in developed countries, such as : USA, Germany, UK, Japan and others.

Nowadays, the draft of Standardization Law is being worked out for this purpose. A number of propositions on standardization have been already established in Environmental Protection Law. Technical norms of standards will be based on corresponding legislative norms. First of all, it signifies the norms on goods, services and labour safety and on environmental protection.

The second principle may be called as continuity. The complex of state standards and specifications, which have been set up before and currently in force, regulates production and ensures the necessary technical unity.

The following items are established in standardization documents:

- common technical language;
- the unifying series of the most important characteristics of products;
- forms and standards (models) of general purpose hardware (bearings, cutting tools);
- technical and economic data classifiers;
- reference information about materials and substances characteristics.

So a new standardization system is being developed on this base. It doesn't ruin the fund but transforms it in accordance with new principles. Such approach to the matter ensures the continuity of manufacturing process.

The 3-rd principle may be formulated as the "compatibility" with world-wide standardization practice. This principle realizes practically in the following way:

1. General positions and regulations of national standardization system have been harmonized with international, regional and progressive national standardization systems of other countries. As a matter of fact that is the subject of my report.
2. The direct use of international and regional standards regulations and instructions. At present the part (share, portion) of ISO and IEC standards application has been increased to 30% per year. In future we are going to reduce the working out of original standards.

Now we pay our attention to UNO recommendations concerning the problems of safety production, delivery, storage and use of explosives. There are a number of works in Russia concerning such technologies. In our work we mean to extend cooperation with all interested countries and especially with USA because of their great experience in realization of such works.

committee. In addition to this the scientific and public organizations are also represented there.

When national technical committees are being created we take into consideration the existence of such committees in ISO, IEC, CEN, CENELEC.

Technical committees work out national standards and carry out works on international standardization, keeping in touch with international and national technical committees on standardization of other countries.

In conclusion, it should be noted that standardization system of the Russian Federation, being created nowadays, promotes the introduction of market economy, the removal of technical barriers, and it is harmonized with international regional and national standardization systems of countries with developed market economy.

3. Creation of favorable conditions for all countries and firms which are interested in appearance at our market, where the requirements of our national standards are well-known and accessible for foreign producers of goods and harmonized with international and national standards of countries with well-developed market economy.

Just for that purpose we are going to put into practice from 1993 a new system of information about the working out of national standards of Russia and about the object of standardization.

4. Russia takes part in working out international standards. As examples of such works there are the following standards:

- ISO 8044 "Corrosion of metals alloys. - Terms and definitions"
- ISO / DIS 11881 "Corrosion of metals and alloys. - Determination of resistance to exfoliation corrosion of high strength aluminium alloys"
- ISO/DIS 11846 "Corrosion of metals and alloys. - Determination of resistance to intergranular corrosion of solution heat treatable aluminium alloys"
- ISO 8407 "Corrosion of metals and alloys. Removal of corrosion products from corrosion test specimens". This standard is a joint work of specialists from our country, USA, Austria, Czechoslovakia and Sweden.

The technological methods established by this standard are used by 51 corrosion stations of 16 countries through all over the world just in accordance with international test program ISOCORRAG of ISO/TC 156.

One more example. At present a number of proposals made by Russian specialists concerning the plans of improvement the reliability test methods standard No 6057 is being discussed in IEC. All these proposals are greatly appreciated because they can reduce the volume of tests by 5-7% even in accordance with the most economic existing plans and by 40% in accordance with the new special plans instead of old standard plans.

It is clear that we are speaking about scientific-capacious new perspective high technologies.

And the last thing I want to mention is the democratization of the working out of standards (by means of democratic methods).

There are more than 250 technical standardization committees and the expediency of such committees is obvious. They carry out more than 80% of all work concerning the working out of standards.

The technical committees have united everybody who are interested in standardization. According to the compulsory committee regulations the representation of researchers, producers and consumers is obligatory in every

M. Averin
 Vice Director
 for Research Projects
 VNIIS Moscow

The current stage of economic development in Russia features the collapse of former production relations, the decline in production volumes and the higher shortage of both capitalized and consumer goods.

This has resulted in further degradation of quality and workmanship. The issue of product safety for life, health and personal property as well as for environment has become aggravated.

It must be emphasized that some of our foreign business partners promptly took advantage of this situation, delivering to us in some cases inferior products often potentially hazardous for consumers (examples are available).

Things being as they are, the Russian Government has been obliged to take a number of legislative and administrative actions aimed at establishing the consumer protection system. The idea behind this system is that it should be efficient and effective in the originating free market environment, conform to the practices of developed civilized countries and be recognized by them.

The first practical steps intended to protect life and health of our people against potentially hazardous products have already been made. According to the Consumer Protection Law passed last February by the Supreme Soviet of Russia, mandatory certification of products to meet safety and ecological purity requirements is being stepwise introduced in our country. Subject to such certification is the majority of consumer goods. It is prohibited to market such goods without relevant certificates. First to be certified are food and agricultural products, goods for children, chemical products for domestic purposes, household appliances, motor vehicles, and some other goods. As may be seen, those are essential goods in high demand which might be most detrimental to customers.

I will cite a few examples. Annually 50 to 60 thousand people get killed and almost 400 thousand get seriously injured in traffic accidents across the territory of the former USSR. It might be well to point out that recent three years have witnessed an increase in car accidents through the use of parts and components manufactured by cooperatives and small businesses whose products are not subjected to inspection. Last year about 16 thousand people in Russia died from liquor substitutes. During the first four months of the

Services provided to the public are also subjected to mandatory certification. This primarily refers to tourism, hotels, maintenance of household appliances and radioelectronics and motor vehicles.

It must be specially emphasized that mandatory assessment for safety parameters will cover both products of government-owned companies and products of market formations like cooperatives, joint ventures, exchanges, concerns, stock companies, etc.

And finally, also subjected to mandatory certification are all goods imported to Russia. Import certification is a must because of inferior products sometimes delivered to us by some business partners. Recently in the Far East there happened a mass poisoning with poor-quality alcohol supplied from China.

The effective implementation of the Consumer Protection Law can be ensured provided there is a number of laws to promote it having been prepared and carried into effect.

Those are laws on product certification, state system of standardization, metrology, government supervision, labor protection, etc. Some of them have been prepared and submitted to the Supreme Soviet of Russia, others are in the final stage of development.

It is appropriate to mention here that by virtue of the Decision of the Supreme Soviet to implement the Consumer Protection Law the Russian Government is preparing a program of law-drafting activities concerning consumer protection based on worldwide practices. Among other things, the program envisages the development of draft laws on safety of certain types of products (processes, services) most hazardous in government opinion as on the reimbursement procedure for damages caused to customers through deficiencies in products (processes, services) and in case of bankruptcy of companies (business-owners).

Today over 20 ministries and departments in Russia undertake supervision over product safety. The Gosstandart of Russia nominated the national certification body for products (processes, services) is responsible for coordination of their activities.

This choice is no coincidence for it is the Gosstandart of Russia that embodies in its network 100 standardization and metrology centers in all regions of the country, about 20 research and production groups and research institutes, 15 factories, test and certification centers, publishing house and printing-house.

The Gosstandart also disposes of its own training facilities: the Russian Institute for Professional Development with branches and training divisions in St. Petersburg, Catherineburg, Vladimir, Nizhny Novgorod and other towns, two technical schools, viz. the Moscow Engineering School of Metrology and Quality and the Urals College for Metrology and Quality.

By now we have laid down the foundations of the Russian certification system (GOST-R Certification System) based on international certification principles, primarily the third party certification principle, considering the available national experience. Product certification within the GOST System is accomplished according to the models specified by ISO. Product requirements are most comprehensively assessed in model № 5 related to type testing at accredited testing laboratories, release of products by the manufacturer with the assessed production facilities and the certified quality system, inspection of product characteristics through periodic testing of samples taken in the marketplace and from the manufacturer as well as by verifying the stability of production conditions and quality system operation. However, due to insufficient production facilities assessed, this model is practically inapplicable today. A wide use is made of model № 3 concerning type testing at accredited testing laboratories and periodic testing of samples taken from the manufacturer. Subsequently, with the advent of a large number of assessed production facilities a gradual transition to model № 5 will be undertaken. The GOST System is open for bodies and organizations of other countries which recognize and adhere to its rules. Besides product certification, the System covers accreditation of testing laboratories, certification of quality systems and assessment of production facilities, training and certification of auditors in the above areas.

The System will deal with both mandatory (for products purchased for personal needs) and voluntary (for capitalized products) certification.

So far, within the GOST System, we have accredited 222 testing laboratories and centers (including 154 in Russia as well as 3 American testing laboratories of the Amador Corporation and Globtech Laboratories), have nominated 15 central certification bodies, are running accreditation projects for 30 certification bodies dealing with specific types of products, have assessed 26 production facilities, including 9 in Russia, have certified one quality system, are proceeding with assessment of 8 production facilities and certification of 6 quality system respectively.

As you can see, the progress is fairly moderate. There are some attempts currently made to gather momentum, however this should not jeopardize the quality of accreditation and hence certification.

In the recent past there were several active attempts at the governmental level to improve the quality and safety of products using command and

administrative methods. These attempts turned into loud mass campaigns, consumed substantial resources without producing tangible results. I would mention mass assessment of production facilities (in two years over 15 thousand production facilities had been assessed), initiation of the State Quality Mark often used to mark insufficiently good products, installation of the state quality system introduced at 2260 enterprises. Sound and progressive ideas underlying those actions were soon discredited by their wholesale nature and campaign-for-the-sake-of-campaign approach.

Therefore under the conditions of originating civilized economy we adhere to the "better less but better" principle.

Standards that specify requirements for products and their test methods form a regulatory basis directly applicable to mandatory certification. These are national standards, sanitation rules and regulations, construction codes and others. The existing collection of these documents does not fully provide for certification capabilities necessitating the revision of almost half of them.

Beginning on May 1, 1992, VNIIS and the Gosstandart Board put into practice a set of conceptual guidelines covering all operational aspects of the GOST System.

To make the System compatible with national and international certification systems, the above documents both meet ISO/IEC recommendations and European 45000 standards and directly incorporate some of them. Such conformity is to enable certification arrangements to be signed with other countries as well as to promote recognition of our certificates abroad.

Last July the Russian Government resolved to introduce in 1992 the safety verification procedure for goods (processes, services) and to approve a list of domestically produced and imported goods whose safety was to be verified beginning on September 1, 1992.

The safety verification procedure is a new approach according to which the producer (supplier) declares that his products meet the requirements of laws and standards intended to secure safety of life and health of customers, environmental protection, prevention of damage to personal property.

In 1993, the scope and range of deliveries subject to purchase and sale or exchange (barter) will increase. This will require efficient and prompt actions from the customs. Today in Russia there are about 50 customhouses and 80 custom posts. Acting on behalf of the Gosstandart of Russia, standardization and metrology centers within the customs areas will be responsible for all importation and inspection of goods.

So far the Gosstandart does not dispose of a sufficiently broad network of standardization and metrology centers in a number of existing customs

STANDARDIZATION AND CERTIFICATION OF ELECTRICAL ENGINEERING PRODUCTS, RADIOELECTRONIC PRODUCTS AND INFORMATION TECHNOLOGIES

Gubenko V.G.
Gosstandart of Russia
Chief of General Department
of Standardization and
Certification
of Information Technologies,
Electrotechnics
Manufacturing
and Instrument Making.

areas. The objective is to establish and equip of new centers capable of exercising supervision of goods to Russia.

The Gosstandart of Russia is doing a lot to train auditors. Last year 24 auditors were trained and certified by the German Society for Quality (DGQ). This year more than 150 auditors have been already trained within the national system. By the end of the year another 150 will be trained, and 250 experts will be trained next year.

The upgrading project in certification for industrial personnel currently undertaken will be subsequently extended to cover thousands of experts. It will be realized, in particular, through seminars like the presents one.

The certification effort cannot be confined to one country. International cooperation of Russia in this field will be realized and extended via involvement in international organizations like ISO, IEC, ILAC, EOQ, OIML, BIPM and through bilateral arrangements with various countries and organizations.

On July 4, 1992, in Krasnodar, the CIS countries signed the interstate agreement concerning certification practices and mutual recognition of certificates. As provided by the agreement, these countries will establish their own certification systems using conceptual principles based on international documents. In these efforts it is recommended to use guidelines of the GOST Certification System.

The report comprises the structure of the standards fund in electrical engineering, electronics, instrument-making industry, medical equipment industry and information technologies; the harmonization level with international standards (IEC, ISO); the perspectives of harmonization of national standards with international standards and organization of standardization works in the fields being discussed. The participation of Russia in the IEC Quality Assessment System for Electronic Components (IECQ) and the IEC System for Conformity Testing to Standards for Safety Electrical Equipment (IECEE) is described. The information is given as far as the trends of the national certification (both mandatory and voluntary) are concerned. The National Certification System for Conformity Testing to Standards for Safety Electrical Equipment, the organizational structure of the System, the applied certification schemes, the harmonization of the national standards used in the System with IEC standards, plans for the National System development.

CERTIFICATION OF FOOD AND TOYS

Mishina M.F.,
Assistant chief,
Central administrative board
for standardization and
certification
of raw, stock, products of
food and light industries and
agriculture

Dear ladies and gentlemen!

At present, problems concerning quality of food and toys are the most urgent in our state.

People of our state to a great extent worry about toxic substances available in food, because it is one of the properties detining quality.

Thus it is necessary to take prompt actions to settle the problem as it is very important for preserving life and health of people.

In accordance with the act of the Supreme Soviet of Russia on "Protection for consumers rights" since January 1993 food and children products both manufactured in our state or imported from abroad may be realized only in case they have certificates confirming their safety.

At present Russian experts are developing certification systems for food and toys.

We think that they will promote in protection of consumer interests.

Therefore, today I can say not only about our service experience in the field of certification of food and toys but we can already submit this system.

Certification systems for food and toys are based on the single Russian certification system for products GOST.

Products are certified and tested for conformity with standards and other specifications.

Certification of food, raw food products and toys is to be done obligatory in accordance with standards, providing their safety.

The range of indexes in standards, which define products safety, is established by the state committee for sanitary and epidemiological supervision and Gosstandart of Russia.

Safety requirements for food are established in the document approved by the Ministry of public health.

It lists limiting values for such toxic substances contained in food as heavy metals (lead, cadmium, mercury, zinc, copper), pesticides, micotoxins, antibiotics, nitrates and other chemical contaminants; it defines also limiting values for microbiological contaminants, and besides in the state standards there are such indexes providing safety of food as presence of parasitic inclusions in food made of animals, presence of cereal pests and grains of toxic plants and weeds in cereals and flour, presence of metallic impurities in milled products, presence of spoiled grains (infested with fusobacterium, smut, ergot), indicating that active biochemical and microbiological processes occur in grains, and at the result of these processes toxic substances from products of hydrolysis and oxidation are generated in case of violating storage conditions and storage life (for example peroxide and acid numbers) in vegetable oil, in case of violating permissible level of preserving and stabilizing substances.

For toys.

Toys will be checked for presence of sharp ends and cutting edges, for releasing of toxic substances (antimony, arsenic, barium, cadmium, chrome, lead, mercury, selenium) and also monomers, plasticizers, ingredients. Toys strength, resistance of protective coating to saliva, sweat, moisture, sound level, smell, producing by toys and other safety indexes will be also checked.

When choosing certification system all food products are divided into two groups depending on periods of realization (perishable and long keeping products).

For certification long keeping products any certification system intended for other types of products available in our state or abroad may be used.

As for perishable products certification of quality systems, including certification of formulations are carried out. Certification of enterprises should be based on ISO series 9000 international standards.

For indication that products conform to the requirements of standard there is special mark of conformity, approved by Gosstandart of Russia.

An enterprise which got a certificate has the right to label its products with mark of conformity.

Certificate is in force only for prescribed storage life.

Every party participates in certification on a voluntary basis.

Certification is paid for by those who handed in an application.

At present single rules for certification of food are being developed.

As for purposes for standardization in the field of agriculture and food production they can be defined in the following way:

- Transfer to single European market;
- Protection of consumer rights;
- Developing of acts adequate to the present situation in the field of economy.

Karnaushkin Y. U.,
 Director of the State Center
 for Certification of Small
 Arms,
 Cand. of Scns (Tech.)

These are the main principles used when developing certification systems for food and toys.

We'll be pleased to have any information about your practice in settling these problems.

Small arms and cartridges of non-military purpose are certified to protect a Russian consumer against their dangerous usage. Besides small arms, all means of civil purpose having a powder charge in their structures as well as all their components influencing safety of a shooter and intended for independent delivery are subject to mandatory certification as certification for safety requirements is mandatory according to the Law of the Russian Federation on "Consumer rights protection".

Traditional production of high-quality and reliable small arms dates back to the beginning of arms production in Russia. As early as 1698 Peter the First, who initiated large-scale production of arms (in particular, arms enterprise in Tula), ordered to severely punish gunsmiths for bad quality of arms. He used to write: "If...by the indicated date a rifle is produced unduly or unskillfully, or in iron of bad quality, all blacksmiths should be severely whipped in public". And this was strictly observed.

Due to such measures and stringent centralized management of production including quality control at all manufacturing stages of sports and hunting rifles and cartridges (in many instances borrowed from military production), domestic arms and cartridges were permanently reliable and safe in usage. The full monopoly of production of these types of products also contributed to the above. Tula and Izhevsk are two cities, where two large centres for arms are located.

From our viewpoint at the present time, when the centralized management is excluded and the production activities at conversion enterprises of the country are increasingly becoming commercialized, the only possible tool for quality control of arms and cartridges of non-military purpose is their certification.

Decision — making on the introduction of mandatory certification was preceded by the analysis of systems for safety control of arms in countries - main manufacturers of small arms in the world (including the USA as far as it was allowed by the available information). As a result this decision was taken due to the following reasons:

1. The up-to-date state of production in Russia characterized by number of factors, which can unfavorably affect products quality.
2. Forthcoming liberalization of arms market. In this context it should be emphasized that the purpose of certification is not only to control local manufacturers of arms and cartridges (self-control of technical control department is rather strong there), but to control mainly imported products. It concerns, in particular, the expected increasing import of gas arms.
3. Demonopolization of arms production in this country including the production of licensed arms and cartridges at conversion enterprises, which did not produce them earlier.
4. Insufficient general culture in the usage of arms and appearance of a great number of inexperienced new owners of small arms.

As it is known, the certification is based on the objective control of specific parameters of products by the third party independent from both the manufacturer and seller. In case of small arms and cartridges this control is performed by independent testing laboratories accredited by a competent body (Gosstandart of Russia). Test results make it possible to mark arms or issue a certificate. Limit values of geometrical sizes of cartridge holders and bores of the barrels before and after arms testing with a stronger charge as well as limit values of geometrical sizes and maximum pressures of powder gases of cartridges are subject to control.

This certification scheme is internationally recognized and is, in particular, at the basis of Brussels Convention on mutual recognition of test marks for small arms. This Convention requirements became mandatory for its member - countries started to be actively used in making contracts for selling arms and cartridges. From this time our country started to show again its interest in Brussels Convention. Our specialists repeatedly participated at Convention meetings, made appropriate corrections in the structure of arms and their test methods. A special testing station was set up in the Ukraine.

The last one year and a half was most active in terms of certification of arms and cartridges. The organizational structure of the Russian certification system for arms was finally arranged as a part of "GOST certification system". Gosstandart of Russia accredited VNIИ standardization as a certification body for small arms and cartridges, which methodically coordinates and arranges all activities with in the System. The state center for certification of small arms is set up to be directly involved in certification work as an independent third party. The independent State testing station is accredited. Accreditation of industrial testing laboratories for competence is at its final stage.

Contacts with european testing stations are extended. Mr. Mario Tsentì, Director of the Permanent Bureau of the Permanent International Commission of Brussels Convention, officially visited this country this June and positively evaluated the readiness of Russia to join the Convention.

The governmental act of the Russian Federation on joining the Brussels Convention, prepared by Gosstandart and Ministry of Industry of Russia, is a result of work done. This act is expected to be signed this week. Mandatory certification of arms and cartridges is introduced by this act starting from January 1, 1993.

The typical feature of arms certification is the control of each specimen intended to be sold for population including military specimens sold to civilians even if they passed special military acceptance. Certification of cartridges is a certification of products type, when type are performed and the manufactures is given a certificate granting a right to put a mark of conformity on the primary packaging of cartridges.

Mutual recognition of test results and testing marks by exporters and importers of products makes it possible to eliminate mutual barriers in trade and avoid expenses for retesting of arms. This results in lower price, what is also beneficial for a consumer. Retesting is costly and, for example, testing of one hunting rifle costs 10-15 US dollars. The losses are considerable in case of Russia exporting tens of thousands of rifles per year. The cost of local tests is 30-50 times less.

In this context, besides joining the Brussels Convention, Russia is greatly interested in establishing bilateral arrangements on mutual recognition of test results, in particular, between Russia and USA as largest producers of small arms in the world. This arrangement could reflect mutual agreement of type dimensions of cartridge holders and cartridges, usage of mutual experience in test methods and a number of other aspects. For example, the usage of ecologically clean steel shots in hunting cartridges. This arrangement can be established without any difficulties taking into account the level of production of arms and cartridges in our countries.

GUARANTY SUPERVISION FOR REALIZATION OF THE DEMANDS OF THE STATE STANDARDS IN THE NATIONAL ECONOMY OF RUSSIA

(summerized presentation)

Okrepilov V.V.
Director-General
Rostest-St.Peterburg,
Dr. of Economic Science

Rostest-St. Peterburg is the State Control body and a representative of the National Centre of the country on certification - Gosstandart of Russia on the territory of the St. Peterburg Region. The main purposes of the centre are:

- protection of interests of consumers and state in getting production (services) of proper quality
- realization of state supervision observing compulsory standards on production, service
- organization and fulfillment of work on ensuring of unity and reliability of dimensions in the region
- organization and realization of independent tests and certification of production (services) and quality system
- preparing of specialists in standardization, metrology, tests and certification of production (services)
- coordination of activities of region bodies of state direction, fulfillment of control on production safety in the region
- fulfillment of actions on international cooperation and economical activities.

So, several hundreds of specialists with higher technical education - state inspectors and experts are working for the centre.

Every year the centre fulfills the state supervision on goods, sold to the population, in terms of the safety requirements.

To define the quality of production on compulsory requirements Rostest-St. Peterburg has accredited in the national system laboratories on testing of food products and electric products. Tests on other kinds of products are fulfilled in accredited testing centres in Russia.

More than 9 min means of measuring, used by enterprises, are under supervision of Rostest- St. Peterburg to insure the unity of dimensions.

On the territory of St. Peterburg region Rostest is the main central body on certification of food products, and services and fulfills work on:

- accreditation of bodies on certification
- accreditation of testing laboratories
- certification of quality system
- certification of production
- certification of production (services)

This work is fulfilled in conformity with the rules of certification system GOST.

This work is being done in conformity with the state policy of taking up the quality of production and services, rising competition of production in inner and international market. The centre establishes international connections for recognition the results of tests and certification with Germany, Japan, Turkey.

WAYS FOR DRINKING WATER QUALITY IMPROVEMENT IN THE RUSSIAN FEDERATION

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"Water Quality"

The problem of drinking water quality is now a matter of special attention of public, legislative and executive bodies in all civilized countries. Its urgent solution accounts for universal deterioration of the state of water supply sources, difficulties related to conformity of drinking water to sanitary and hygienic requirements under such conditions causing, thus, threat of mass diseases, higher death rate, especially infant one, and higher social tension.

According to statistics and publications of international organizations the damage to human health done as a result of consumption of drinking water of bad quality is equal to losses caused by calamities, unfavorable ecological situations, famine and other global factors. The World Health Organization states that over 500 million people in the world suffer annually from consumption of bad quality water; up to 80 % of intestinal infectious diseases are due to contacts with infectious water. Material damage due to diseases, caused through the usage of contaminated water amounts annually to tens of billions of dollars.

It can be stated that lower average life and higher infant mortality in many areas of Russia are to a considerable extent due to the consumption of water of bad quality. Examinations of drinking water quality made in the recent years testified that about 50 % of Russian population had to consume water with a number of indicators non-conforming to sanitary and hygienic requirements.

The presence in water sources of highly-toxic combinations, salts of heavy metals and other pollutants supplied with non-purified sewage, with insufficient barrier role of operating water-purification facilities on water lines creates a serious danger for human health in many regions of Russia, accounts for the high level of intestinal diseases, hepatics and higher risk of cancerogeneous and mutagenous factors.

The forced usage of highly-mineralized underground waters for routine water supply without introduction of appropriate methods of water-purification, deironing, softening, freshening, defluorination, etc. also unfavorably affects human health. Justifiable complaints of "rusty water" and numerous cases of allergic diseases are typical for many populated areas of Russia. The

usage of water with increased hardness and mineralization accounts for a growth of intestinal disease as well as troubles with liver and kidneys.

The people of a number of regions of Russia are justifiably concerned by the discovery in water sources and drinking water of phenols oil products and other organic substances, which in the process of chlorination form highly-toxic, chloride-organic combinations with cancerogeneous properties.

Results of examinations of water supply facilities testify to the fact, that drinking water is supplied in Russia with many problems to be dealt with. The water-purification systems of the majority of waterlines are unable to purify and disinfect water to the full extent, there's a lack of required control over quality in water sources and waterline networks, technology for water preparation and purification does not conform to the nature of initial water contamination.

Normative base in the field of standardization and control of water quality is considerably lagging behind.

Taking the above and the actually situation with drinking water for people of the Russian Federation into account it is necessary to conduct a wide complex of interrelated operations combined into the state scientific and technical program, the development and realization of which will make it possible to efficiently solve tasks of water quality improvement.

This program is now under development by VNIISTandardization with guidance of Gosstandart of Russia. Specialists in the field of hygiene, medicine, municipal water supply, ecology, etc. participate in its development.

Most helpful for us in this activity is the international expertise in the improvement of water supply and quality of drinking water including the impressive and instructive expertise of USA, where much work has been done for the last 20 years under the guidance and control of the Environmental Protection Agency (EPA) to ensure safety of drinking water in accordance with Act 1974 (SDWA).

Taking the above into account we regarded the development of the Russian Federation ACT "On the supply of people with drinking water" as a priority task to solve the common problem of water quality improvement. This Act should legally consolidate the absolute right of each citizen of Russia for drinking water of good quality and obligation of the State for the satisfaction of this right. To a certain extent this Act is being developed as a document similar to U.S. Safety Drinking Water Act with account of appropriate Acts of European countries, WHO recommendations and structural peculiarities of management bodies and arrangement of water supply in Russia. The draft Act is now developed and planned to be submitted for consideration of the Supreme Council of Russia this autumn.

The draft Act includes provisions specifying the right of people for drinking water of good quality, take measures required to provide water supply facilities with appropriate resources, reagents, equipment as well as responsibility of water supply facilities and their owners for regular supply of people with drinking water satisfying sanitary and hygienic requirements. This draft Act specifies the procedure of development and application of normative requirements to drinking water quality and the right of local administration, as is the case in USA, for certain temporary departures from such requirements or their stringency depending on the sanitary and hygienic situation. It also envisages economic forms of control in water supply system and responsibility of legal and physical persons for damage done to water supply systems and human health as a result of water quality deterioration.

The inclusion of the provision on certification of drinking water in the draft Act caused debate. According to the Consumer Rights Protection Act the drinking water is subject to certification as non-observance of requirements specified in its standard can result in damage to human health. However, the specific nature of water production, dependence of its quality on the condition of waterline networks and, mainly, on unstable quality of initial water of water supply sources make it considerably difficult to ensure guarantees of drinking water quality as a product and due to this water supply enterprises object against certification of drinking water.

In this context we regard as most useful the international expertise in certification of water in water supply systems and, especially, the expertise of US, where according to publication 1978 the requirement to mandatory certification of drinking water was introduced on the basis of Safety Drinking Water Act.

Unfortunately, we do not have more detailed data on the practical realization of procedure specified in the above publication.

The draft Act "On the supply of people with drinking water" was finally added with the provision specifying certification of drinking water according to the Consumer Rights Protection Act and approval of production, periodical control of water quality after purification in the networks of consumers, control of production process for stability including control of stability of water quality in water supply source within the certification scheme of drinking water in centralized systems of water supply.

The preparation of the draft Act was accompanied with the development of the draft program to ensure its implementation and application. This draft program included actually a number of priority tasks aimed at improving quality of drinking water.

acts, normative and guiding documents, typified provisions, educational programs as well as different organizational and technical measures aimed at improving water supply of Russian people.

The development of the Russian Federation Act "On protection of underground and surface waters" is of special importance among legal acts, which are planned to be prepared. Besides its ecological significance it can considerably contribute to the solution of water quality problem as it is practically impossible to guarantee stable quality of drinking water without cardinal improvement of protection of water objects against contamination. This approach is similar to that existing in US, where the text of the Safety Drinking Water Act was directly added with the section on protection of underground water supply sources.

To protect water supply sources from contamination the program, in addition to the above draft Act provides for the development and approval at the governmental level of a new provision specifying creation of zones for sanitary protection of water supply sources and waterlines as well as revision of construction rules and norms for waterlines including problems of their protection from contamination and damage.

To support the improvement of water quality in Russia both normatively and technically the program specifies two main types of activities dealing with the development and revision of required standards, i.e., the introduction of new requirements to water quality harmonized with international recommendations and direct application of international standards to control quality of drinking water.

A new standard specifying requirements to water quality should be developed because the valid GOST 1982, though specifying standardization of a rather wide range of indicators of water quality by reference to medical sanitary and hygienic requirements for 1500 different substances, does not specify mandatory control of most typical organic substances such as pesticides, surface-active substances, chloride-organic combinations, polycyclic aromatic combinations, etc. contained in drinking water.

Recommendations of the WHO Guide on water quality control including a wide range of requirements to organic combinations, the expertise of European countries reflected in EC directive 80/778 on normative requirements to drinking water and US EPA requirements, which from our viewpoint cover most fully the sphere of possible contamination of drinking water, typical also for conditions of Russia, considerably extend a range of organic combinations to be controlled and provide for a dynamic extension of a number of indicators to be standardized and controlled to ISO 2000 year, should be taken into account and adopted.

Thus, the combination of legal activity with the development and implementation of required standards accompanied with organizational measures and practical actions is a necessary condition making it possible to solve such a complicated and important state task as the improvement of drinking water quality.

Thus, the new standard for drinking water is supposed to be developed with maximum account of international expertise in standardization and control of requirements along with the usage of available information on specific types of contamination of water objects in various regions of Russia.

However, most difficult in the extension of a number of controlled indicators of water quality is the practical fulfillment of a required control analyses under real conditions of water production.

In this case the account should be also taken of US EPA expertise which mandatory specifies for each newly introduced requirement the best water treatment method making it possible to achieve purification as specified and control conformity of the given indicator to specified requirements with required accuracy and metrological support of measurements.

In this context one of the main tasks related to the introduction of the new standard with normative requirements to water quality is the development and application of a series of standards for water quality control in terms of each specified indicator. In so doing it is primarily envisaged to make maximum use of international standards of ISO/TC 147 "Water quality", which cover the considerable number of indicators subject to control. The majority of these standards is supposed to be introduced directly with additions required due to the usage of reagents and equipment produced in Russia, but not specified in international standards. In some cases the valid GOST for water quality control method is supposed to be taken as a basis with addition of methods as specified by international standards of ISO. It is, finally, planned to develop new standards (GOST P) accompanied with required researches based on domestic achievements in analytical chemistry with account of international expertise, in particular, EPA in case international standards of ISO and GOSTs, specifying control of a number of indicators, are not available.

The development of typified standard methods specifying control of integral indicators of water quality with the usage of biotesting methods and methods for total determination of organic substances etc is regarded as the most urgent task in standardization of water quality control means. The creation and arrangement of activities of the technical committee for standardization TC 343 "Water quality",

operating as a Russian part of ISO/TC 147, arrangement of activities dealing with the examination of the state of water supply in certain regions of the Russian Federation accompanied with the development and realization of specific measures aimed to improve water quality can be singled out among other activities envisaged by the program. This work was in particular, conducted in Ryazan and its area, where positive results on water supply of people were achieved.

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The State system of scientific and technical information incorporates a ramified system of information support of standardization and certification which is functioning in the Gosstandart of Russia. Its main links are all-Russia organizations of the Gosstandart of Russia and 100 regional centers. The All-Russia Research Institute of Comprehensive Information on Standardization and Quality (VNIKI) is at the head of this system. The all-Russia organizations are responsible for information resources which are closely related to their research activities. The regional centers interact with the all-Russia links and provide information services for enterprises and organizations regardless of forms of property in their regions. It means that the system is developed according to the principle of a distributed databank, where information resource is located at the place of its origin and processing.

Information support of standardization and certification involves about 20 information activities, which are most similar to those current in developed countries that are in the lead of standardization and certification. It is natural that some individual activities are developed to a greater or smaller extent due to specific character of economic and social development of the Russia Federation.

Acquisition and running of data collections is one of the most important activities. The VNIKI is in possession of the largest data collections. The large collection of home and foreign documents is of the highest value. Furthermore, it is unique in our country. It contains over 500 thousand documents including above 200 thousand home (various types of standards and specifications) and about 300 thousand foreign documents which are being constantly updated. The foreign documents collection contains 23 thousand standards of international and regional organizations (ISO, IEC, CEN/CENELEC, ECMA, etc.), 250 thousand standards of national organizations for standardization (ANSI, BS, NF, DIN, JIS, etc.), 25 thousand standards of unions, societies, associations (ASTM, ASME, VDI, etc.).

Another actively used VNIKI's collection is the collection of home standardized terminology, terminological entries of which total over 150 thousand. Each entry includes terms and definitions in Russian, short forms of the terms, abbreviations, etc. Equivalents in English, German and French are selected for each term.

The VNIKI possesses the major collection of national classifications of technical, economic and social information designed for registration, statistics, foreign trade, banking, customs activities, etc.

To promote implementation of international system of electronic data exchange in the fields of management, trade and transport (EDIFACT) in our country, the VNIKI acquired a collection of normative documents relative to the system.

To prepare analytical data and surveys concerning trends of priority in standardization and certification development, the VNIKI carries out a regular study of subject-oriented primary information flow, including home and foreign periodicals, monographic publications, reports on overseas business trips of experts from the Gosstandart of Russia, etc. Analytical surveys on the role of standardization and certification in establishing the Common European Market, on standardizing services at contemporary foreign firms, on the main orientations in products certification are the most typical ones.

The source of official and other information on certification is the All-Russia Research Institute for Certification (VNIIS). The basis of information on certification is the State register of the GOST certification system. This information comprises data on accredited testing laboratories (centers), certified products and services, enterprises that obtained certificates for quality systems, accredited certification bodies, as well as data on certification and accreditation systems current at home and abroad.

The State databank for materials and substances is maintained by the All-Russia Research Center for Standardization, Information and Certification of Raw Materials, Materials and Substances (VNITS SMV). The collection includes data on commercial materials and substances and those which are being accepted commercially and intended for acceptance. The data cover their properties, testing techniques, analogs, data on developers, manufacturers, etc.

The said collections are the basis for issuing bibliographic and factual information, data acquisition by the regional centers, acquisition and maintenance of translations collections, publishing information indexes and catalogs.

The data collections serve as a basis for creation and running of computerized databanks that help to meet ever-growing information requirements (multi-aspect search, urgent information services, etc.). For example, the computerized databank for normative documents stores bibliographic information on all home and foreign standards and other normative documents available at the VNIKI. On using the databank, the user has the opportunity of conducting a search based on a series of aspects, including a search based on subject-oriented queries within groups of homogeneous

products, on the document's designation, key words of the document's name, effective dates, etc. A remote user is provided with these services in the teleprocessing mode.

The most frequently used services within reference information servicing are "request-and-answer" and selective dissemination of information on a subscription basis.

Information activities in the field of standardization and certification are coordinated by the VNIKI in conference with the information committee similar to the corresponding committee (INFCCO) of the International Organization for Standardization (ISO).

In conclusion I would like to say that we welcome and are very much interested in implementation of the American proposal on regular exchange of information between the National Information Center for Standardization and Certification in the USA and the VNIKI of the Gosstandart of Russia. This proposal became part of the draft recommendations and we are ready to discuss concrete steps in this field with the American side. Moreover, we are interested in information not on standards alone, but on other technical regulations and legislation in these fields. This would enable us to build up an information bridge between our countries. We ought to make it feasible for the user to obtain either required information or its address via two institutes appointed for this purpose.

SYSTEM OF SANITARY AND HYGIENIC REQUIREMENTS TO PRODUCTS AND SERVICES AND CONTROL OVER THEIR OBSERVANCE

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The Law on "Sanitary and epidemiological safety of population" determines the rights of Russia population for favourable (safe to health) living environment as well as the rights and obligations of the state in terms of sanitary and epidemiological safety. This Law also specifies the procedure of standardization of human environment factors, requirements to favourable conditions of human vital activities and the system of state control over the observance of such norms and requirements in this country.

Sanitary, hygienic and antiepidemic norms and requirements are specified on the basis of scientific studies and developments with corrections to the made after practical application. Norms and requirements are developed and reviewed with the observance of the principle excluding detrimental influence of environmental factors on human body. Such normative acts (sanitary rules, norms and hygienic requirements) of federal level are approved by the State Committee for Sanitary and Epidemiological Supervision of Russia. They are a must for all legal and physical persons on the territory of this country. Besides, in specific cases the territorial bodies of the state sanitary and epidemiological supervision can specify more stringent norms and requirements (depending on hygienic, epidemic, ecological environment and the state of health on the specific territory).

The state sanitary and epidemiological service is set up in this country the purpose of which is to control the observance of requirements specified in sanitary legislation by all organizations and citizens. This service includes 2600 centres for state sanitary and epidemiological supervision, 32 scientific and research institutes of hygienic and epidemiological profile and 4 scientific and practical centres. The State Committee for Sanitary and Epidemiological Supervision of Russia is at the head of this service.

Since practically all types of products are becoming at the present time potentially and increasingly dangerous for human health, the state sanitary and epidemiological supervision over products, which are potentially

legislation requirements - at the stages of production (import), selling and usage (application) of products Control is performed through laboratory studies of specimens, evaluation of production technology and examination of raw materials. Production (import) and selling of products are prohibited in case they are found to be dangerous for human health.

dangerous for human health, is performed and improved in the Russian Federation as specified by current requirements Products, which can unfavourably affect human health in production, storage, transportation, application and utilization, are regarded as potentially dangerous. A list of such products is approved by the State Committee for Sanitary and Epidemiological Supervision of Russia. This list, for example, includes food raw materials and food products, food additives, products for children, perfumery and cosmetics, pesticides, products of household chemistry, household and production appliances.

Potentially dangerous products are produced on the territory of Russia or imported to it with the special permission of the state sanitary and epidemiological supervision bodies. In case of domestic products this permission is granted on the basis of evaluation of test results of specimens and normative documents specifying future indicators and characteristics of serial production. In case of imported products the permission for import and selling on the territory of Russia is granted on the basis of evaluation of safety certificate (medical certificate) of the supplying country or on the basis of test results of specimens obtained in Russia. In both cases the products are subject to uniform requirements of sanitary legislation valid on the territory of the Russian Federation. The permission for production (import) of products is granted through an appropriate hygienic certificate issued by the state sanitary and epidemiological supervision bodies. In doing so the hygienic certificate specifies indicators and characteristics, which specimens should conform to, and permissible area and conditions of usage of products (ensuring their safety for human health). Thus, the representative of the state sanitary and epidemiological service confirms safety of products for human health as conforming to specified requirements in case they are used with the observance of specific conditions, i.e., effects certification of safety.

Starting from May 1992 the Law of the Russian Federation "On consumer rights protection" introduces mandatory certification of products, for which safety requirements to life and human health, environment and material values are specified in legislative acts or national standards. Certification is performed for conformity of indicators and characteristics of products to requirements specified in normative documents, i.e. is a conformity certification. At the present time the manufacturer or seller of products have a right to confirm safety of their products independently or with the help of other independent bodies. The manufacturer of serial products is responsible for their safety to human health.

Besides the above — mentioned systems for control of products safety to human health the specialists of the state sanitary and epidemiological service perform random current supervision over conformity of products to sanitary

Appendix B

United States Department of Commerce (DOC)
and
Russian Ministry of Foreign Economic Relations (MFER)

"Intergovernmental U.S.-Russia Business Development Committee"

Standards Working Group

RECOMMENDATIONS FROM THE FIRST MEETING
HELD IN
ST. PETERSBURG, RUSSIA
SEPTEMBER 8 AND 9, 1992

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- recognizing that harmonized standards and conformity assessment procedures, as well as technical regulations, are important for the development of commercial, economic, scientific and technical co-operation between the United States and Russia;
- noting the importance of international standardization for international trade and industrial, scientific and technical co-operation;
- and considering that effective implementation of international and harmonized standards and conformity assessment procedures is possible at binational and international levels;
- the Standards Working Group recommends that the United States DOC and GOSSTANDART agree to encourage their respective standards related communities to:

1. Seek to harmonize national standards and conformity assessment procedures, as well as technical regulations.
2. Promote participation in the work of organizations engaged in the preparation of international standards and conformity assessment procedures.
3. Strive to use existing international standards when drafting national standards and conformity assessment procedures, as well as technical regulations; and in the absence of international standards, employ harmonized standards and conformity assessment procedures.
4. Provide mechanisms to allow for public review of and comment on standards and conformity assessment procedures, as well as proposed technical regulations.
5. Afford affected parties an opportunity to review findings and present evidence, followed by appropriate corrective action in the drafting of standards and conformity assessment procedures, as well as technical regulations.

6. Promote regular contacts among cognizant agencies and ministries (e.g., interagency meetings) and with private sector entities in order to implement these recommendations.

7. Develop the technical basis for effecting the bilateral acceptance of one another's conformity assessments measures.

8. Explore the exchange of technical experts to facilitate accomplishment of these objectives.

9. Designate the "National Center for Standards and Certification Information (NCSCI)," which maintains the "Inquiry Point" for the United States under the GATT Standards Code, and which is located at the National Institute of Standards and Technology in Gaithersburg, Maryland, and the "Scientific Research Institute for Technical Information, Classification and Coding (VNIKI)" at the GOSSTANDART of Russia located in Moscow, Russia, as focal points for the exchange of standards-related information, including regulations and legislation, to one another.

10. Jointly review progress in fulfilling these recommendations on an annual basis.

Appendix C

Final Participants List Intergovernmental U.S. - Russian Business Development Committee's Standards Working Group Meeting

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National Institute of Standards and Technology

March 23-24, 1993

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Appendix D

On the Protection of Consumers' Rights
Law of the Russian Federation
passed by the Supreme Soviet of the Russian Federation
February 7, 1992

This Law regulates relations arising between consumers and entrepreneurs; establishes the rights of consumers to obtain goods (work, services) of appropriate quality, to safety of their life and health, to the receipt of information about goods (work, services) and their manufacturers (performers, sellers), to education, to state and social protection of their interests, and to association in consumers' societies; and also determines the mechanism for the realization of these rights.

The fundamental concepts applied in this Law are as follows:

- consumer -- a citizen who uses, acquires, orders, or intends to acquire or order goods (work, services) for his personal everyday needs;
- manufacturer -- an enterprise, organization, institution or citizen-entrepreneur producing goods for sale;
- performer -- an enterprise, organization, institution or citizen-entrepreneur performing work or offering services;
- seller -- an enterprise, organization, institution or citizen-entrepreneur selling goods in accordance with a purchase-and-sale contract;
- standard -- state standards, sanitary norms and rules, construction norms and rules, and other documents which, in conformity with Russian Federation legislation, establish mandatory requirements for goods (work, services);
- mandatory certification -- confirmation given by the appropriate authorized bodies that goods (work, services) conform with standards' mandatory requirements;
- defect -- a specific noncorrespondence of goods (work, services) to the mandatory requirements of standards, to contract conditions, to general requirements, or to information about the goods (work, services) that is presented by the manufacturer (performer, seller);
- substantial defect -- a defect which makes it impossible or impermissible to use goods (work, ser-

VICES) in accordance with their intended designation; or which cannot be eliminated in the case of particular consumer; or which, in order to be eliminated, would require great expenditures of labor and time; or which makes the goods (work, service) something other than what the contract provides for; or which reappears after having been eliminated.

PART I: GENERAL PROVISIONS

Article 1. Legislation on the Protection of the Rights of Consumers

1. Legislation of the Russian Federation on the protection of the rights of consumers shall consist of this Law and other legislative acts of the Russian Federation issued in accordance with it.

2. The Government of the Russian Federation shall have the right to regulate relations concerning the protection of the rights of consumers only in instances expressly envisioned in the legislative acts of the Russian Federation. The Russian Federation Government shall not have the right to assign ministries and departments to promulgate normative acts on the protection of consumer rights.

3. In the course of regulation of relations concerning protection of consumer rights by legislation of the constituent republics of the Russian Federation, the norms of these acts may not restrict the rights of consumers or reduce the guarantees for consumer protection envisioned by this Law.

Article 2. Application of Legislation on the Protection of the Rights of Consumers of One Republic Which is a Part of the Russian Federation Within the Territory of Another Republic Which is a Part of the Russian Federation

1. Legislation on the protection of the rights of consumers of one republic shall be applied within the territory of another republic in accordance with the following rules:

-- to relationships arising from infliction of harm to consumers and from their exercise of their rights to safety and health, the law of the place of consideration of the dispute shall be applied or, at the request of the consumer, the law of the place where harm was inflicted;

goods (work, services) shall be applied if it is not otherwise provided by an agreement between the consumer and the seller (performer).

2. Rules of an interrepublic agreement shall be applied if an interrepublic agreement envisions other rules for the application of one republic's legislation within the territory of another republic.

Article 3. International Treaties

Rules of an international treaty shall be applied if an international treaty in which the RSFSR is a participant establishes rules other than those contained in the legislation of the RSFSR on the protection of consumers' rights.

Article 4. Quality of Goods (Work, Services)

The seller (manufacturer, performer) shall be obligated to provide the consumer with goods (work results, services) which correspond in quality to the mandatory requirements of state standards, to the conditions of the contract, to general requirements, and to the information on the products (work, services) which was furnished by the seller (manufacturer, performer).

The manufacturer (performer) shall be obligated to ensure the ability to use goods (work results) in accordance with their intended use for the duration of the term of service, which is set independently or by agreement with the consumer. If the term of service is not established, then it shall be ten years.

The manufacturer shall be obligated to provide for the possibility of repairing and technically servicing goods throughout the entire period of their production and also, following the removal of goods from production, for the duration of the terms envisioned by part two of this article.

Article 5. The Right to Safety of Goods (Work, Services)

1. Consumers acquiring goods (ordering work, services) shall have the right for these goods (work, services), while in standard use, storage and shipment, to be safe to life, health, the environment and consumers' property. Requirements [applicable] to goods (work, service) which ensure the safety of life and health of consumers, protection of the environment, and prevention of harm caused to consumers' property, shall be established by standards.

For certain categories of goods (work, services), the above mentioned requirements are established by legislative acts of the Russian Federation.

In those cases where there are no standards containing mandatory requirements for goods (work, services), the use of which may cause harm to consumers' life and health, to the environment, or to consumers' property, the appropriate state management bodies are obligated to immediately provide for the development and implementation of such standards, and where necessary, suspend the sale of said goods (the performance of work, the offering of services) by the manufacturer (performer, seller).

2. Terms of service (fitness for use) must be established for goods (work results) which, when utilized after a certain period of time, constitute a danger to the life and health of consumers or to the environment, or can cause harm to consumers' property.

Consumers must be informed as to the term of service (fitness for use) of goods (work results), the necessary course of action once this term has expired, and the potential consequences of failing to perform this course of action.

3. The manufacturer (performer, seller) is obligated to guarantee the safety of goods (work, services) for the duration of their term of service (fitness for use) or, in the absence of said term of service -- for ten years.

Damage caused to consumers as a result of violating this requirement is to be compensated in accordance with Article 12 of this Law.

4. If the observance of special rules is necessary for the safe use of goods (work, services) or for their shipment and storage, the manufacturer (performer) shall be obligated to develop such rules, and the seller (performer) -- to bring them to the notice of the consumer.

5. Goods (work, services) for which legislative acts or standards establish requirements to ensure the safety of consumers' life and health, the protection of the environment, and the prevention of harm to consumers' property, as well as means of ensuring the safety of consumers' life and health, shall be subject to mandatory certification in accordance with established procedure.

The sale of goods (including imports), performance of work or provision of services without certification confirming the conformity of said goods (work, services) to Point 1 of this article, shall be prohibited. The basis for permission to introduce goods onto the territory of the Russian Federation shall be the

presentation to customs authorities of a certificate that has been issued or recognized by the appropriate state body.

Liability for violation of the requirements for the safety of goods (work, services) envisioned by this point, as well as for the unfounded issuance of certificates, shall be determined by Article 41, Point 2 of this Law.

6. If it is established that the use, storage or transportation of goods (work results) in accordance with the [provided] rules causes or may cause harm to the life, health or property of citizens, the manufacturer (performer, seller) shall be obligated to immediately suspend its manufacture (sale) until the causes of the harm have been eliminated and, when necessary, to take steps to recall said goods from consumers and withdraw it from circulation.

If the causes of the damage cannot be eliminated, the manufacturer (performer) shall be obligated to withdraw said product (work, service) from production. When the manufacturer (performer) fails to observe these obligations, the withdrawal of the goods (work, services) from production, their withdrawal from circulation and recall from consumers shall be carried out on the initiative of the state body in charge of regulating the safety of goods (work, services).

Losses incurred by consumers in connection with the recall of a product (work results) shall be subject to full compensation by the manufacturer (performer).

Article 6. Consumers' Right to Information

The consumer shall have the right to demand from the seller (manufacturer, performer) the provision of necessary and accurate information concerning the enterprise, the goods (work, services) sold by it, and its work regime [business hours, etc].

The stated information shall be brought to the notice of consumers in a simple and accessible form when contracts are concluded on the sale of goods (performance of work, provision of services) by the means customary to specific spheres of service.

Article 7. Information about the Manufacturer (Seller, Performer)

1. The manufacturer shall be obligated to bring to the notice of consumers the name of its enterprise and its location. The above information shall be stated on the manufacturer's label or by other means in accordance with applicable legislation.

2. Trading enterprises, [and] enterprises furnishing everyday and other types of services, shall be obligated to post a sign stating the nature of their activity and the form of their organization, and the firm name, if it exists, and information on their business hours. Enterprises are required to indicate their legal address (location of their owners) on such signs.

Enterprises engaged in trade, [and the provision of] everyday and other types of services shall be obligated to inform consumers about the rules in accordance with which they sell goods (perform work, provide services).

3. The rules of paragraph 2 of this article shall apply to the carrying out of trade, [and the provision] of everyday and other types of services at temporary sites, bazaars, from pushcarts, and to other instances where trade and [the provision of] services are conducted outside the permanent address of the trade enterprise, [or] the enterprise [providing] everyday services and other types of services.

Article 8. Information about Goods (Work, Services)

1. The Manufacturers (seller, performer) shall be obligated to furnish in a timely fashion to the consumer necessary and accurate information about their goods (work, services) ensuring the possibility of a well-informed choice. With respect to certain types of goods (work, services), the list [of required information] and the means for conveyance of the information to consumers shall be established by the Russian Federation Government and by the Councils of Ministers of the Russian Federation's constituent republics.

2. Information about goods (work, services) must include:

-- designation of standards to which the goods (work, services) must conform;

-- basic characteristics of the goods (work, services), and with respect to food products, the ingredients (including a list of other food products and food additives used in preparation), weight and quantity of the contents, number of calories, presence of materials harmful to health, [and] warnings against use in instances of certain types of diseases;

-- the price of the goods (work, services) and conditions for acquisition;

-- manufacturer's (performer's) warranty obligations;

-- rules and conditions of effective and safe use of goods (work, services);

-- duration of the term of service of goods (work results), information on actions required of the consumer at the expiration thereof, and also on possible consequences for nonperformance of the stated actions;

-- addresses of manufacturer (performer, seller) and enterprises authorized by the manufacturer (seller) to accept consumer claims and also those engaged in repair and technical maintenance.

For goods (work, services) which are subject to mandatory certification, consumers must be provided with information about such certification.

For goods (work, services) which, under certain circumstances, can constitute a danger to the life and health of consumers, the manufacturer (performer, seller) shall be obligated to inform the consumer about the nature of the potential consequences of their influence.

For products (food products, perfumery, cosmetics, medicines, everyday chemical preparations, and so forth), the quality of which may deteriorate with passage of time, the term of fitness for use (storage) or sale must also be exhibited.

With respect to work (services), the consumer must also be provided with information on the rules for its performance (provision).

3. The information envisioned in paragraph 2 of this article shall be brought to the attention of consumers in the technical documentation accompanying the goods (work results, services), on a label, and also by a mark indicating date of manufacture or sale, or by other means commonly used for specific types of goods (work, services) or in specific spheres of services. Packaging must contain the same information required for the individual goods. Food products packed or sorted [but not produced] in the Russian Federation must supply information about the place of their origin.

4. Citizens who are conducting entrepreneurial activities without establishing a legal person shall be obligated to provide the consumer with information on their registration and the name of the organ that registered them, and also the standards whose mandatory requirements are applicable to the goods (work, services) sold by them.

Article 9. The Work Regime of Sellers (Performers)

Consumers have the right to require that sellers' (performers') work regimes [business hours] correspond to those which are advertised.

For state (municipal) enterprises engaging in commerce, everyday services and other kinds of services, business hours are established by a resolution of local administrative bodies.

The business hours of enterprises based on other forms of property which are engaged in commerce, everyday services and other kinds of services are determined by the owner of said enterprises.

When the business hours of state (municipal) enterprises engaging in commerce, everyday services and other kinds of service violate the [required] schedule of business hours, the guilty officials bear the liability for said violation, as established by the legislation of the Russian Federation and that of its constituent republics.

Article 10. Liability for Improper Information

1. If the provision of inaccurate or insufficient information about good, works or services result in:

-- acquisition of goods, work [or] services that do not possess qualities needed by the consumer, [the consumer] shall have the right to cancel the contract and to demand compensation for losses caused.

-- impossibility of use of the acquired goods, work [or] services according to their intended use, the consumer shall have the right to demand the provision of proper information within a reasonably brief period of time. If the information is not provided within the stated period of time, the consumer shall have the right to cancel the contract and to demand compensation for inflicted losses;

-- harm to the health, life or property of the consumer, he shall have the right to present the demands envisioned in Article 12 of this Law to the seller, manufacturer or provider. He shall also have the right to demand compensation for damages caused to natural objects which are in the consumer's possession or which he has a right to own, as well as compensation for damages caused on the other grounds envisioned by law or by contract.

2. When there are systematic violations of the provisions of Articles 7, 8, and 9 of this Law, the manufacturer (performer,

seller) may be liquidated, in accordance with the procedure established by Russian Federation legislation, on the initiative of the State Committee of the Russian Federation on Antimonopoly Policy and the Support of New Economic Structures and its territorial representative bodies.

3. When examining demands made by consumers regarding compensation for damages caused by inaccurate or incomplete information about goods (work, services), it is necessary to proceed from the premise that the consumer was lacking in specialized knowledge about said goods' properties and characteristics.

Article 11. Liability of Sellers (Manufacturers, Performers)

1. The seller (manufacturer, performer) shall bear liability for violation of the rights of consumers envisioned in this Law. The legislation of the Russian Federation and its constituent republics, or a contract between consumer and seller (performer), may envision liability for violation by the seller (manufacturer, performer) of obligations for which this Law does not establish liability, and also may establish a greater degree of liability.

2. Losses caused to the consumer as a result of defects in goods (work, services) shall be subject to compensation in addition to the amount of the forfeit provided by this Law.

3. Payment of a forfeit and compensation for losses shall not free the seller (manufacturer, performer) from fulfillment of the obligations towards the consumer which this Law imposes upon him.

4. The seller (manufacturer, performer) shall be freed from liability for the nonfulfillment or improper fulfillment of obligations established by this Law, if he shows that the nonfulfillment or improper fulfillment occurred as a result of force majeure, and also on other ground envisioned in this Law.

5. Demands of consumers concerning the payment of forfeits, as envisioned in this Law, other legislative acts respecting consumers rights, or in a contract, shall be subject to voluntary satisfaction by the seller.

6. When satisfying the demands of consumers (consumers' societies), as established by this Law, the court has the right to pass resolutions calling for the exaction of a fine, [to be paid] into the corresponding budget, from the seller (manufacturer, performer) who has violated consumers' rights, in an amount equal to the face amount of the lawsuit, for failure to observe the voluntary procedure for satisfaction of the given consumer's demands.

Article 12. Property Liability for Harm Caused By Defects In Goods,
Work, and Services

1. Harm caused to the life, health or property of the consumer as a result of defects in construction, manufacture, [or] formation, and other defects in goods, work [or] services, shall be subject to full compensation if the legislative acts of the Russian Federation [or] of the republics which are a part of the Russian Federation, does not provide for a greater degree of liability.

2. The right to demand compensation for damages caused by defects in goods (work, services) shall be recognized for all consumers who have suffered damages, regardless of whether or not they were in a contractual relationship with the manufacturer or seller. Harm caused to the life, health or property of a consumer shall be subject to compensation if it occurred during the duration of the established term of service (fitness for use) provided in the normative technical documentation, and in the absence of such - within 10 years of the date of manufacture (acceptance of work, service).

3. Harm which is caused as a result of defects in goods which have appeared over the course of the warranty period or the term of fitness for use -- and if they are not established, within the period established in point 1 of Article 18 and point 2 of Article 10 of this Law -- or another, longer period established by contract, are subject to compensation by the seller or manufacturer.

Harm caused as a result of a defect in goods which appears after the expiration of the warranty period shall be subject to compensation by the manufacturer of the goods.

Harm resulting from defects in work (services) shall be subject to compensation by the performer.

4. The manufacturer (performer) bears liability for harm that is caused to the life, health, and property of consumers in connection with use of the materials, equipment, appliances, instruments and other tools necessary for the production of goods (the performance of work, offering of services), irrespective of whether or not the level of scientific and technical knowledge made it possible to ascertain the particular properties of said goods.

5. The seller, manufacturer or performer shall be freed from liability if they prove that the harm arose as a result of an insurmountable force or a violation by the consumer of the rules of use or storage.

Article 13. Compensation for Moral Harm

Moral harm caused to a consumer as a result of the violation of his rights by the manufacturer (performer, seller), as envisioned by legislation on the protection of consumers' rights, shall be subject to compensation by the causer of harm, in the presence of fault [on his part]. The amount of compensation for the harm shall be determined by a court unless otherwise envisioned by legislative acts.

Article 14. Consumers' Rights

1. Contractual terms that restrict consumer rights as compared with the rules established in legislation shall be invalid.

If, as a result of the application of contractual terms which infringe upon consumers' rights, a consumer incurs losses, they shall be subject to full compensation by the manufacturer (seller, performer).

2. The conditioning of acquisition of specific goods (work, services) on the mandatory acquisition of others shall be prohibited. Losses caused to the consumer as a result of violation of his rights to an unimpeded selection of goods (work, services) shall be fully compensable by trading enterprises, [and] enterprises engaged in provision of everyday and other types of services.

3. The seller (performer) shall not have the right to compel a consumer to accept additional services which are offered for a fee. The consumer shall be entitled to demand the return of the sum paid for provision of additional services without his consent.

Article 15. The Right to Receive Privileges and Advantages in the Domain of Commerce, Everyday Services and Other Kinds of Services

Consumers have the right to demand that they be granted privileges and advantages, if this is envisioned by legislative acts of the Russian Federation or its constituent republics.

Article 16. Protection of Consumer Rights by the Court

The protection of consumers' rights envisioned in legislation shall be carried out by the courts.

Lawsuits shall be filed in courts at the plaintiff's place of residence, or at the location of the defendant, or at the place where harm was inflicted.

Consumers shall be freed from the payment of state [filing] fees in lawsuits filed in connection with violations of their rights. PART IV. STATE AND SOCIAL PROTECTION OF CONSUMERS' RIGHTS

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[Articles 17-39 omitted]

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Article 39. Authority of the Russian Federation State Committee for Antimonopoly Policy and Support of New Economic Structures

1. For purposes of the protection of consumer rights, the RSFSR State Committee for Antimonopoly Policy and Support of New Economic Structures (hereinafter "GKAP of Russia") and its territorial organs shall be entitled to:

-- exercise state control over observance of the legislation of the Russian Federation on the protection of consumer rights;

-- eliminate monopolistic practices of business subjects and unfair competition in the market for consumer goods, work, and services;

-- issue prescriptions [orders] to manufacturers (sellers, performers) on the elimination of violation of consumer rights;

-- file suits in courts or arbitrazh courts against manufacturers (sellers, performers) in instances of discovery of violations of consumer rights.

2. The GKAP of Russia shall be entitled to make agreements with manufacturers (sellers, performers) concerning their observance of all rules and customs of business life, in the interests of consumers.

The GKAP of Russia shall issue official clarifications regarding issues of application of the legislation of the RSFSR on the protection of consumer rights.

Article 40 Powers of the Organs of State Administration Exercising Control Over the Safety of Consumer Goods (Work, Services)

1. For purposes of ensuring the safety of goods, work, and services, the Russian Federation State Committee for Standardization, Measurement, and Certification (hereinafter "GOSSTANDART"), the State Committee for Sanitary and Epidemiological Supervision under the Russian Federation President, the Russian Federation Ministry of Ecology and Natural Resources, and other state management bodies that regulate the safety of goods (work, services), shall be entitled to:

-- establish mandatory requirements for the safety of goods (work, services) and exercise control over the observance of legislation on the safety of goods, work, and services;

-- issue orders regarding the elimination of violations of requirements for the safety of goods (work, services), the discontinuance of production, the cessation of manufacturing and sale of such goods (work, services), their recall from consumers, and also the informing of consumers about [such steps];

-- file suits in courts or arbitrazh courts against manufacturers (sellers, performers) in instances of their violations of requirements for the safety of goods (work, services).

2. Coordination of the state management bodies which regulate the safety of goods (work, services) in this domain is the responsibility of the Russian Federation GOSSTANDART.

3. GOSSTANDART of Russia is a federal body for the certification of goods (work, services). In connection with this, GOSSTANDART shall:

-- determine the procedure for certification of goods, (work, services);

-- determine the list of goods (work, services) subject to mandatory certification;

-- accredit the bodies engaged in certification of specific types of goods (work, services), and also investigative laboratories (centers) for the conduct of corresponding investigations, [and] provide other legal persons with the right of accreditation;

-- exercise control over the correctness of conduct of certification of goods (work, services);

-- keep a state register of certified goods (work, services), accredited bodies for certification, and investigative laboratories (centers);

-- make decisions on the recognition of certificates issued by foreign and international bodies;

-- represent the Russian Federation in relations with foreign countries and international organizations on issues of certification of goods (work, services).

Article 41. Sanctions Imposed by GKAP of Russia, GOSSTANDART, and Other State Management Bodies that Regulate the Safety of Consumer Goods (Work, Services)

1. The GKAP of Russia has the right to impose fines of up to one million rubles upon manufacturers (sellers, performers) for evasion of performance or untimely performance of GKAP orders to cease violating consumers' rights.

2. GOSSTANDART of Russia and other organs of state administration carrying out control over the safety of goods (work, services), within the boundaries of their competence, shall be entitled to impose fines in instances of:

-- evasion of performance or untimely performance of its prescriptions -- of up to 1 million rubles;

-- the causation of harm to consumers through goods (work, services) that do not satisfy safety requirements -- in the amount of the harm caused to consumers, or where the amount of such harm may not be determined -- in the amount of up to 1 million rubles;

-- the violation of rules for the certification of goods (work, services) by certifying bodies and experimental laboratories (centers) -- in the amount of twice the cost of the certification work; and for violations [of certification rules] by manufacturers (sellers, performers) -- in the amount of the cost of the goods (work, services) sold in violation of the rules for certification.

3. The heads of enterprises and certifying bodies shall bear liability for the violations envisioned by points 1 and 2 of this article, in the form of a fine imposed by the Russian Federation GKAP, GOSSTANDART, and other bodies carrying out control over the safety of goods (work, services), in the amount of up to three official salary payments.

4. Manufacturers (sellers, performers) of goods (work, services) shall be entitled to apply to a court or arbitrazh court with an application for the invalidation of prescriptions issued by the GKAP of Russia, GOSSTANDART, and other organs carrying out control over the safety of goods (work, services), in whole or in part, or for reversal or modification of a decision to impose fines.

Filing of the application shall not suspend the prescription or the decision on imposition of a fine during the period of its consideration in court or in arbitrazh court, if the court or the arbitrazh court does not issue a determination to suspend execution of the stated acts.

Article 42. Organs for the Protection of Consumer Rights In Local Administrations

1. Local administrations shall create bodies for the protection of consumers' rights.

2. Local administrative bodies for the protection of consumers' rights shall:

-- examine consumers' complaints and advise them in regard to legislative questions concerning the protection of consumers' rights;

-- analyze the contracts concluded between sellers (performers, manufacturers) and consumers with the goal of exposing conditions which infringe upon consumers' rights;

-- collect information regarding the causal of harm to consumers' life, health or property by dangerous goods (work, services), and direct such information to the GKAP of the Russian Federation (its territorial representative bodies);

-- when consumers discover defects in goods (work, services) or dangerous goods (work, services) are exposed, immediately inform the appropriate branches of Gosstandart, the GKAP of the Russian Federation and other state management bodies that regulate the safety of goods (work, services);

-- with the goal of protecting consumers' rights, bring lawsuits to court on their own initiative, at the request of consumers (groups of consumers), or in the interests of an undefined group of consumers.

Article 43 Rights of Consumers' Societies in the Russian Federation

1. Citizens shall be entitled to associate on a voluntary basis in social organizations of consumers [consumer societies], which shall carry out their activities in conformity with the legislation of the RSFSR and of the republics which are part of the RSFSR.

2. Consumer societies shall be entitled to:

-- participate in the preparation of requirements for the safety of goods, work, and services, and also of the state standards establishing those requirements;

-- conduct independent expert examinations of the quality and safety of goods, work, and services;

-- verify the observance of consumer rights and of rules of trade and [of the provision of] everyday services and other types of services;

-- introduce in organs of government, enterprises, organizations, and institutions, proposals for measures for the improvement of the quality of goods (work, services), [and] for discontinuance of production and withdrawal from circulation of goods, work, and services dangerous to citizens' life, health and property or to the environment;

-- participate, along with the appropriate state management bodies, in supervising the application of regulated prices;

-- introduce to the procuracy and to governmental bodies materials on the imposition of liability on persons guilty of production and sale of goods, work, and services that do not conform to the established requirements for safety and quality;

-- file suit in the interests of consumers who are not members of consumer societies, in instances of violations of their rights established in the legislation of the Russian Federation and its constituent republics on protection of consumers' rights.

Article 44. Protection of Consumers' Rights by Consumer Societies

Consumer societies shall be entitled to file a suit in court for acknowledgement of the activities of the seller [or] manufacturer (enterprise exercising their functions), performer, and also organs of government, illegal with respect to an indefinite number of consumers and for termination of these activities.

In the course of satisfaction of such a suit, the court shall obligate the violator of the law to convey the court's decision through the mass media, or by other means, to consumers within a period of time set by the court.

The court's decision to acknowledge activities of a manufacturer, seller (enterprise exercising their functions), or performer as illegal with respect to an indefinite number of consumers, which decision has entered into legal force, shall be binding on a court considering an action by a consumer relating to civil and legal consequences of these activities on the question of whether these activities took place and whether they were performed by these people.

TEMPORARY PROCEDURE FOR THE IMPORT
OF COMMODITIES LIABLE TO CONFIRMATION
OF THEIR SAFETY TO THE TERRITORY OF
THE RUSSIAN FEDERATION

This document has been prepared on the basis of the Consumer Protection Law of the Russian Federation, the Decision of the Russian Federation Government N 508 of July 22, 1992 "On stage-by-stage implementation of mandatory certification of commodities (processes, services) in 1992" and specifies the procedure for the import of commodities liable to confirmation of their safety to the territory of the Russian Federation.

This document covers the commodities which are subject to purchase and sale or exchange (barter) with foreign partners and is intended for artificial and physical persons importing commodities to the Russian Federation as well as for organizations exerting control over safety of commodities to be imported.

This document does not cover commodities produced in the CIS countries as well as transit goods.

I. MAIN PROVISIONS

I.1. The safety of commodities shall be confirmed through their certification or recognition of certificates or other conformity attesting documents issued abroad (hereinafter referred to as foreign certificates).

I.2. Commodities shall be certified as meeting the requirements of legislative acts and standards aimed at securing consumers' life and health, environmental protection and prevention of damage to property.

I.3. The rules for certification and recognition of foreign certificates in the Russian Federation shall be specified by the documents of the GOST R Certification System approved by the Gosstandart of Russia.

I.4. The safety of a commodity shall be confirmed by the following documents:

- certificate of conformity (hereinafter referred to as the certificate) as shown in Annexes 1 and 2, properly issued by the authorized body according to the results of commodity certification and based inter alia on a hygienic certificate for products potentially hazardous to human health;

- the license for certification (hereinafter referred to as the license) as shown in Annex 3, issued by the authorized body as a result of recognition of the foreign certificate for the commodity.

I.5. The list of commodities liable to mandatory certification broken down according to codes of the Commodity Nomenclature for Foreign-Trade Activity of Russia is cited in Annex 4.

I.6. The provision, stating that the commodities to be imported to the Russian Federation should meet the safety requirements and that this conformity should be confirmed by certification, shall be included in foreign-trade contracts and agreements.

I.7. The commodity for which the certificate (the license) was granted and/or its container, package and accompanying documentation should be marked with the mark of conformity according to GOST 28197 (Annex 5) or with any other mark of conformity recognized within the GOST R Certification System.

2. IMPORTATION PROCEDURE

2.1. The basis for permitting the import of commodities liable to mandatory certification to the territory of the Russian Federation is the certificate issued or recognized by the body authorized to do this by the Gosstandart of Russia.

2.2. The certificate (the license) shall be produced at the customs by the declarant or the receiver of commodities and examined before the commodity is let through the customs border.

If necessary, a representative of a territorial body of the Gosstandart of Russia shall be involved in the inspection.

2.2.1. While filling in the cargo customs declaration, the declarant shall indicate the short name of the certification body that issued the certificate, the number of the certificate (the license) and its date of issue as well as its validity period, if specified, in column 44 under figure 6.

2.2.2. The certificate (the license) is considered to be valid provided there are:

- signatures and stamps of the certification body that issued the certificate (the license);

- the number and the date of registration of the certificate (the license) in the State Register of the GOST R Certification System.

The following information shall be verified:

- the validity period of the certificate (the license);
- the name, type, sort and brand of the commodity;
- the name and address of the manufacturer;
- the quantity of products in the imported lot, the number of the lot or the product.

2.2.3. If there are grounds to believe that the commodity being imported does not comply with the information indicated in the certificate (the license), the commodity being imported shall be examined.

2.3. The commodities being imported to the Russian Federation, in violation of this procedure cannot be admitted. These commodities shall be kept on deposit according to the rules specified by customs legislation.

After the expiration of the specified keeping time the unclaimed commodity shall pass into the ownership of the Russian Federation.

2.4. If there is no document confirming the safety of a commodity being imported, the receiver may, during the specified keeping time, apply to a territorial body of the Gosstandart of Russia or to a certification body for homogeneous products to have the commodity certified or the foreign certificate recognized according to the rules of the GOST R Certification System.

2.4.1. For testing purposes the declarant or the receiver has the right to take samples of the commodities kept on deposit at the customs. The number of samples depends on tests to be carried out. Samples shall be taken in the presence of customs officials.

2.4.2. A territorial body of the Gosstandart of Russia (a certification body for homogeneous products) renders to the receiver of commodities, at his wish, the necessary services concerning certification, recognition of the foreign certificate and marking with the national mark of conformity.

2.4.3. On receiving positive results of certification or recognition of the foreign certificate, the receiver shall produce the certificate (the license) to the customs that detained the commodity.

2.5. After examining the submitted documents, the customs shall decide on admission of detained commodities.

State Committee of the Russian Federation
for Standardization, Metrology and
Certification

(Gosstandart of Russia)

GOST R Certification System

CERTIFICATE OF CONFORMITY

No _____

Registered in the State Register
of the GOST R Certification System

" " _____ 199__

Valid until " " _____ 199__

GRANTED TO _____
name of manufacturer

_____ address _____ code

THIS CERTIFICATE ATTESTS THAT THE PROPERLY IDENTIFIED SAMPLE(S)
OF THE PRODUCT _____

_____ code

_____ name, type, kind, brand

_____ code

HAS BEEN TESTED AND MEETS ALL SAFETY REQUIREMENTS SPECIFIED BY

_____ designation of standards with specific clauses indicated
ON THE BASIS OF THIS CERTIFICATE, THE MANUFACTURER STAMPS EACH
PRODUCT WITH THE MARK OF CONFORMITY ATTESTING THAT THE PRODUCTS
CONFORM TO THE TESTED SAMPLE(S) AND THE SPECIFIED STANDARDS.

DELIVERY DOCUMENT _____
designation of document

THE CERTIFICATE WAS ISSUED BY _____
name of certification body

_____ that issued the certificate, address

_____ State Register No.

STAMP HERE

_____ position

_____ signature

_____ initials, family name

1. The Certificate was granted on the basis of:

tests _____

_____ sample designation and No(s)
carried out by testing laboratory(ies):

Nos	Name of testing laboratory (center), address	Test report, No, date of approval	Reg. No of tes- ting laboratory in State Regis- ter
-----	---	---	--

production audit *) _____
quality system certificate,

production certificate, acceptance certificate, report

State Register No _____

2. Products are marked with the mark of conformity stamped on each product, its container, package, shipping documents and instruction manuals to meet the requirements of

_____ designation of normative documents

Location of the mark of conformity:

3. Supervision is performed _____ frequency

through testing of samples taken _____

_____ from the market and/or from the manufacturer and
through production audits*).

*) in compliance with the approved certification procedure for given products.

State Committee of the Russian Federation
for Standardization, Metrology and
Certification

(Gosstandart of Russia)

GOST R Certification System

CERTIFICATE OF CONFORMITY

No _____

Registered in the State
Register of the GOST R
Certification System

" ____ " _____ 199 ____

IT IS TO ATTEST THAT THE PROPERLY IDENTIFIED PRODUCTS

code

name,

type, sort, brand

code

PRODUCED BY

name of manufacturer (producer)

address

code

ACCORDING TO

designation of delivery document

MEET ALL SAFETY REQUIREMENTS SPECIFIED BY

designation of standards

with specific clauses indicated

THE CERTIFICATE COVERS

lot of size ____ pcs., Nos ____; product No ____

THE CERTIFICATE WAS ISSUED BY _____
name of certification

_____ body that issued the certificate,
address _____
State Register No.

STAMP HERE

_____ position _____ signature _____ initials, family name
name

1. The Certificate was granted on the basis of tests _____
_____ sample designation and No(s)
carried out in testing laboratory(ies):

Nos	Name of testing laboratory (center), address	Test report, No, date of approval	Reg. No of testing laboratory in State Register
-----	--	-----------------------------------	---

2. Products are marked with the mark of conformity stamped on each product, its container, package, shipping documents and instruction manuals to meet the requirements of _____

_____ designation of normative documents

Location of the mark of conformity:

State Committee of the Russian Federation
for Standardization, Metrology and
Certification
(Gosstandart of Russia)

GOST R Certification System

LICENSE FOR CERTIFICATION

No. _____

Registered in the State
Register of the GOST R
Certification System

"__" _____ 199__

Valid until "__" _____ 199__

THIS LICENSE WAS GRANTED TO _____
applicant

(producer, supplier, receiver), address

FOR PRODUCTS _____
name, type, sort, brand

code

lot of size _____ pcs, Nos _____; product No _____

code

ON THE BASIS OF _____
certificate reg. No, date of issue

ISSUED _____
name of body that issued the certificate

IN ACCORDANCE WITH _____
international, regional,

bilateral arrangement or other document, No, date

THE LICENSE WAS ISSUED BY _____
name of certification body

that issued the license, address

State Register No.

Stamp here

position

signature

initials, family name

NOMENCLATURE

of commodities whose safety
is to be confirmed

Goods for children

Foodstuff

Consumer goods in contact with foodstuff
and drinking water

Chemical products for domestic
purposes

Perfumery, cosmetics

Pesticides, plant and animal growth stimulants,
mineral fertilizers sold to general public

Household mechanical engineering products
and instruments

Consumer goods contacting in use
unprotected parts of human body



Appendix F

March 23, 1993

Dear Participant in the Intergovernmental U.S.-Russia Business Development Committee's Standards Working Group Meeting:


The Department of Commerce is pleased to announce a new initiative to make available to the U.S. private sector standards community the Special American Business Internship Training (SABIT) program. Under SABIT, the Department of Commerce will provide funding to U.S. private standards organizations to train senior standards experts from GOSSTANDART and other public or private standards organizations in the Newly Independent States (NIS) of the former Soviet Union. We are announcing this initiative in the expectation that we will soon receive additional funding from the U.S. Agency for International Development (U.S.A.I.D.) to expand SABIT.

The SABIT program gives senior NIS managers and scientists firsthand experience working in a market economy by placing them in internships of up to six months with U.S. companies. We believe this new initiative can help train Russian and other NIS standards experts and can provide a closer familiarity with U.S. standards and conformity assessment programs, thereby benefitting all countries concerned.

SABIT provides funding to defray the cost of the internships. Awards will be made to U.S. companies through a competitive application process to cover the roundtrip airfare from the NIS to the U.S. internship site and provide a stipend of \$30 per day to cover meals and incidentals for up to six months (approximately \$900 per month). Host companies provide housing (which can consist of a homestay) and medical insurance, and sponsor the interns for a U.S. visa.

SABIT will distribute applications as soon as our new funding is available. To receive an application, I invite you to call the SABIT office on 202-482-0073 or fax us on 202-482-2443.

Sincerely,


Cynthia Anthony
Director
SABIT



HOW IS SABIT MANAGED?

SABIT is managed by the U.S. Department of Commerce, which matches U.S. firms with English-speaking managers from the Independent States. The Department of Commerce has an experienced staff in place in Washington, D.C. and Moscow that screens the candidates and provides the sponsoring U.S. firms with several candidate profiles from which to select.

Since its establishment on a pilot basis more than a year ago, SABIT has been well publicized in the region and extensive contact has been made with political and economic leaders, business organizations, and private entrepreneurs. The U.S. Department of Commerce already has a large applicant pool from which companies can select their interns.

WHAT IS EXPECTED OF PARTICIPATING U.S. FIRMS?

Any U.S. firm, regardless of industry sector or location in the United States, is encouraged to apply to the program. Participating firms must demonstrate a commitment to the intent and goals of the program and:

- Provide the intern with a hands-on training program in the business skills necessary to operate in a market economy;
- Provide an orientation counselor to help the intern adjust to the United States. The counselor will ensure that suitable housing, which may consist of home-stays, is located for the intern prior to arrival;
- Provide the intern with medical insurance, housing, and any other living expenses beyond those covered by the daily stipend provided by the U.S. Department of Commerce;
- Apply to the program through the U.S. Department of Commerce, which considers applications through a competitive process.

Your firm is encouraged to apply to this exciting program. SABIT is important for our country and would be good for your firm. To learn more about SABIT, please contact:

U.S. DEPARTMENT OF COMMERCE
International Trade Administration
Special American Business Internship Training
Program (SABIT)
Room 3413
Washington, D.C. 20230

Telephone: 202-377-0073
Fax: 202-377-2443

SABIT

**SPECIAL AMERICAN BUSINESS
INTERNSHIP TRAINING
PROGRAM FOR MANAGERS
OF THE INDEPENDENT STATES
OF THE FORMER SOVIET UNION**



A Program of U.S. Government-Private Sector
Partnership Providing Technical Assistance to the
Independent States of the former Soviet Union
Managed by the
U.S. Department of Commerce
in cooperation with the
U.S. Agency for International Development



- With funds provided by the U.S. Agency for International Development, the U.S. Department of Commerce will award grants to U.S. firms to help defray the cost of hosting an intern.
- The funds will cover the intern's roundtrip transportation to the internship site and a daily stipend to cover meals and incidentals for up to six months.
- The U.S. Department of Commerce will assist firms in obtaining visa support for their interns.
- The U.S. Department of Commerce will provide firms with a pool of qualified, pre-screened candidates from which to select their interns. The applicant pool consists of candidates from Russia, Ukraine, Kazakhstan, Byelarus, Kyrgyzstan, Armenia, and other Independent States.

WHAT ARE THE BENEFITS FOR MARKET REFORM IN THE INDEPENDENT STATES OF THE FORMER SOVIET UNION?

- SABIT firms will become part of the United States' effort to support the independent States' transition to free market economies.
- SABIT interns will return to their countries ready to put into action the principles of a free market system.

WHAT ARE THE COMMERCIAL BENEFITS FOR U.S. FIRMS?

- SABIT firms will be able to select interns from potential U.S. business partners in the independent States.
- Because interns are key managers in the same industry sector as their U.S. sponsors, they are uniquely positioned to open doors in the new independent States for their sponsors.
- SABIT firms will develop firm name recognition with key buyers and decision-makers in the independent States.
- SABIT firms will gain insight into the present business climate in the independent States through in-depth and extensive contact with their interns.

WHY AN INTERNSHIP PROGRAM FOR MANAGERS OF THE INDEPENDENT STATES OF THE FORMER SOVIET UNION?

SABIT is a visible demonstration of America's interest in supporting these countries' transition to market economies. In addition, SABIT increases American competitiveness by creating a cadre of influential executives in the independent States who are predisposed to doing business with the United States.

SABIT exposes business managers on a practical level to a whole new way of thinking in which production is driven by demand, consumer satisfaction, and the bottom-line. Interns return to their countries armed with practical knowledge for transforming their economies to the free market system.

"Our employees have been thrilled with the opportunity to both learn from the experiences of the Russian participant and to share our free market concepts with him. They have taken him in as a member of the LL&E family. Bread lines in Russia have taken on a whole new meaning as we can now relate firsthand to those events. We are hopeful through our work with our participant that he can return to Russia and participate in an economic revolution."

H. Leighton Steward
Chairman and CEO
Louisiana Land & Exploration
Company

President Bush
January 22, 1992

"In explaining business operations to our intern and answering his probing questions, we have reexamined and improved many of our work processes. We anticipate doing business in Kazakhstan and will look to our intern for insight. Introducing our intern to American life has been a wonderful opportunity to learn about Kazakhstan and has enriched our understanding of a foreign culture, itself an invaluable lesson for anyone hoping to do business abroad."

R.L. Hartung
Vice President, Public Affairs
Chevron Corporation

"We have benefited far more than expected from the SABIT program...and in an unexpected way. We planned to train and counsel our intern; when in fact, we learned about banking and business opportunities in Russia from an experienced, independent and highly energized Russian manager."

James B. Hayes
Publisher, FORTUNE Magazine

FOR FURTHER INFORMATION

WRITE TO:

National Center for Standards and Certification
Information
National Institute of Standards and
Technology
Administration Building, Room A629
Gaithersburg, MD 20899

TELEPHONE:

- (301)975-4040, -4038 or -4036
- information on existing U.S., foreign and inter-national standards and
- information on foreign regulations and rules of certification

(301)975-4037

- information on the GATT Standards Code and notifications of proposed foreign regulations

(301)975-4041 - GATT HOTLINE

- a recorded message on the latest notifications of proposed foreign regulations

(301)975-4033

- technical assistance concerning standards-related issues

(301)921-4164 - EC HOTLINE

- a recorded message on the latest directives and standards concerning the EC 1992 internal market effort

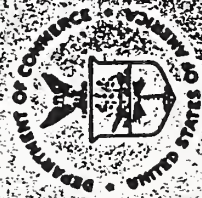
TELEX: TRT 197674 NIST UT

TELEFAX: (301) 963-2871

The Center is open to visitors Monday through Friday, 8:30 a.m. to 5:00 p.m. It is located about 25 miles/40 kilometers northwest of Washington, DC. The Center is about 5 miles from the Shady Grove Metro Station on the Red Line.

**NATIONAL CENTER FOR
STANDARDS AND CERTIFICATION
INFORMATION
(NCSCI)**

Appendix G



May
1990

U.S. DEPARTMENT OF COMMERCE
National Institute of Standards and Technology

INTRODUCTION

The National Center for Standards and Certification Information (NCSCI), established in 1965, provides information on U.S., foreign, and international voluntary standards; government regulations; and rules of certification for non-agricultural products. The Center serves as a referral service and focal point in the United States for information about standards and standards-related information.

The Center is located in the Office of Standards Services (OSS), of the National Institute of Standards and Technology. It contributes to the Institute's goals of improving U.S. competitiveness in domestic and world markets and strengthening and advancing the development and use of the nation's science and technology by providing up-to-date information on standards and certification programs.

NCSCI staff respond to inquiries, maintain a ready collection of standards and standards-related documents, and serve as the U.S. inquiry point for information to and from foreign countries.

INFORMATION SERVICES

General

Center staff respond to written, telephone and walk-in requests for information by identifying relevant standards and/or regulations. Searches are made with the aid of various indexes, by contacting professional and standards-developing organizations, and through communicating directly with foreign standards bodies. The requester is referred to the appropriate standards-developing organization for additional (technical) information and/or copies of the document. NCSCI does not provide copies of standards.

The NCSCI reference collection of standards and standards-related documents includes:

- microfilm files of military and Federal specifications, U.S. industry and national standards, and international and selected foreign national standards;
- reference books, including directories, technical and scientific dictionaries, encyclopedias and handbooks;
- articles, pamphlets, reports and handbooks on standardization and certification; and
- standards-related periodicals and newsletters.

These documents are available in the Center for review only. NCSCI does not provide copies of its reference documents.

Standards Code and ISONET

NCSCI serves as the U.S. inquiry point in response to obligations resulting from the GATT Agreement on Technical Barriers to Trade (Standards Code) and the International Organization for Standardization Information Network (ISONET). NCSCI, with other national inquiry points, form networks -- for GATT and ISO -- that regularly exchange standards-related information. These networks also provide NCSCI with access to foreign trade-related technical standards, regulations and rules of certification. In some instances, the requester may be referred to the appropriate foreign inquiry point directly to obtain information.

Signatories to the General Agreement on Tariffs and Trade (GATT) Standards Code are required to notify the GATT Secretariat of proposed governmental regulations which may significantly affect trade. NCSCI maintains information on notifications of proposed foreign regulations issued through the GATT Secretariat and disseminates them to interested parties in the United States for their review and

comment. NCSCI staff are responsible for notifying the GATT Secretariat of proposed U.S. technical regulations which may affect trade. A GATT Hotline, updated weekly, provides information on notifications of proposed foreign regulations received by NCSCI.

Single European Market (EC 1992)

NCSCI recognizes the importance of the European Community (EC) single European market effort to U.S. exporters. Center staff utilize the following documents, which are available in the reference collection, to assist U.S. exporters in identifying internal market-related product standards and regulations:

- Standards catalogs for most of the EC members;
- *Official Journal of the European Communities*, which contains proposed and final EC directives;
- Catalogs and memoranda of the European Committee for Standardization (CEN) and European Committee for Electrotechnical Standardization (CENELEC); and
- Microfilm files of relevant documents related to the harmonized standards and legislation for the single European market and EC directives.

An EC Hotline provides information on directives and draft CEN and CENELEC standards.

Other

The OSS Technical Office, established in response to the Trade Agreements Act of 1979, provides technical assistance to U.S. industry for standards-related trade problems, provides analyses of standards issues; prepares and publishes indexes and directories of specialized standards information, and arranges for translations of foreign standards (for which there is a charge).

INFORMATION AND PUBLICATIONS
AVAILABLE FROM

Standards Code and Information Program (SCI)
Office of Standards Services
National Institute of Standards and Technology

o The ABC's of Standards-Related Activities in the United States
(NBSIR 87-3576)

This report is an introduction to voluntary standardization, product certification and laboratory accreditation for readers not fully familiar with these topics. It stresses some of the more important aspects of these fields; furnishes the reader with both historical and current information on these topics; describes the importance and impact of the development and use of standards; and serves as background for using available documents and services.

Order as PB 87-224309 from NTIS.

o The ABC'S of Certification Activities in the United States
(NBSIR 88-3821)

This report, a sequel to NBSIR 87-3576, The ABC'S of Standards-Related Activities in the United States, provides an introduction to certification for readers not entirely familiar with this topic. It highlights some of the more important aspects of this field, furnishes the reader with information necessary to make informed purchases, and serves as background for using available documents and services.

Order as PB 88-239793 from NTIS.

o Laboratory Accreditation in the United States (NISTIR 4576)

This report, a sequel to NBSIR 87-3576 The ABC'S of Standards-Related Activities in the United States and NBSIR 88-3821 The ABC'S of Certification Activities in the United States, is designed to provide information on laboratory accreditation to readers who are new to this field. It discusses some of the more significant facets of this topic, provides information necessary to make informed decisions on the selection and use of laboratories, and serves as background for using other available documents and services.

Order as PB 91-194495 from NTIS.

o Questions and Answers on Quality, the ISO 9000 Standard Series, Quality System Registration, and Related Issues (NISTIR 4721)

This report provides information on the development, content and application of the ISO 9000 standards to readers who are unfamiliar with these aspects of the standards. It attempts to answer some of the most commonly asked questions on quality; quality systems; the content, application and revision of the ISO 9000 standards; quality system approval/registration; European Community requirements for quality system approval/registration; and sources for additional help.

Copies not available from SCI. Order as PB 92-126465 from NTIS.

o Directory of International and Regional Organizations Conducting Standards-Related Activities (NIST SP 767)

This directory contains information on 338 international and regional organizations which conduct standardization, certification, laboratory accreditation, or other standards-related activities. It describes their work in these areas, as well as the scope of each organization, national affiliations of members, U.S. participants, restrictions on membership, and the availability of any standards in English. Copies not available from SCI. Order as PB 89-221147 from NTIS.

o Directory of European Regional Standards-Related Organizations (NIST SP 795)

This directory identifies more than 150 European regional organizations - both governmental and private - that engage in standards development, certification, laboratory accreditation and other standards-related activities, such as quality assurance. Entries describe the type and purpose of each organization; acronyms; national affiliations of members; the nature of the standards-related activity; and other related information.

Copies not available from SCI. Order as PB 91-107599 from NTIS.

o Standards Activities of Organizations in the United States (NIST SP 806)

The directory identifies and describes activities of over 750 U.S. public and private sector organizations which develop, publish, and revise standards; participate in this process; or identify standards and make them available through information centers or distribution channels. NIST SP 806, a revision of NBS SP 681, covers activities related to both mandatory and voluntary U.S. standards. SP 806 also contains a subject index and related listings that cover acronyms and initials, defunct bodies and organizations with name changes.

Copies not available from SCI. Order as PB 91-177774 from NTIS.

o Directory of Private Sector Product Certification Programs (NIST SP 774)

This directory presents information from 132 private sector organizations in the United States which engage in product certification activities. Entries describe the type and purpose of each organization, the nature of the activity, product certified, standards used, certification requirements, availability and cost of services, and other relevant details. Copies not available from SCI. Order as PB 90-161712 from NTIS.

o Directory of Federal Government Certification Programs (NBS SP 739)

This directory presents information on U.S. Government certification programs for products and services. Entries describe the scope and nature of each certification program, testing and inspection practices, standards used, methods of identification and enforcement, reciprocal recognition or acceptance of certification, and other relevant details. Copies not available from SCI. Order as PB 88-201512 from NTIS.

o Directory of Federal Government Laboratory Accreditation/ Designation Programs (NIST SP 808)

This directory provides updated information on 31 federal government laboratory accreditation and similar type programs conducted by the federal government. These programs, which include some type of assessment regarding laboratory capability, designate sets of laboratories or other entities to conduct testing to assist federal agencies in carrying out their responsibilities. The directory also lists 13 other federal agency programs of possible interest, including programs involving very limited laboratory assessment and programs still under development.

Copies not available from SCI. Order as SN 003-003-03069-4 from GPO.

o Directory of State and Local Government Laboratory Accreditation/ Designation Programs (NIST SP 815)

This directory provides updated information on 21 state and 11 local government laboratory accreditation and similar type programs. These programs, which include some type of assessment regarding laboratory capability, designate private sector laboratories or other entities to conduct testing to assist state and local government agencies in carrying out their responsibilities. Entries describe the scope and nature of each program, laboratory assessment criteria and procedures used in the program, products and fields of testing covered, program authority, and other relevant details.

Copies not available from SCI. Order as SN 003-003-03093-7 from GPO.

o Barriers Encountered by U.S. Exporters of Telecommunications Equipment (NBSIR 87-3641)

This report addresses the perceived institution of unreasonable technical trade barriers by major European trading partners to the export of telecom products and systems by U.S. companies. The GATT technical office, which has responsibilities to assist U.S. exporters to take advantage of trade opportunities, informally contacted over a period of six months, telecom companies and agencies to assess the extent of unreasonableness in foreign national standards, regulations, testing and certification requirements, and accreditation procedures.

Copies not available from SCI. Order as PB 88-153630 from NTIS.

o A Review of U.S. Participation in International Standards Activities (NBSIR 88-3698)

This report describes the role of international standards, their increasingly significant importance in world trade, and the extent of past and current U.S. participation in the two major international standardization bodies - ISO and IEC. The degree of U.S. participation covers the 20 year period 1966-1986. A coarse analysis of data indicates some correlation between U.S. participation and recent export performance for several major product categories.

Copies not available from SCI. Order as PB 88-164165 from NTIS.

o An Update of U.S. Participation in International Standards Activities (NISTIR 89-4124)

This report presents updated information on the current level of U.S. participation in ISO and IEC (reference: NBSIR 88-3698).

Copies not available from SCI. Order as PB 89-228282/AS from NTIS.

o A Summary of the New European Community Approach to Standards Development (NBSIR 88-3793-1)

This paper summarizes European Community (EC) plans to aggressively pursue its goal of achieving an "internal market" by 1992 and the standards-related implications of such a program on U.S. exporters.

Order as PB 88-229489/AS from NTIS.

o Trade Implications of Processes and Production Methods (PPMs) (NISTIR 90-4265)

This report discusses processes and production methods (or PPM's) and their relationship to trade, the GATT Agreement on Technical Barriers to Trade, and traditional product standards used in international commerce. The report provides background information on PPM's, a suggested definition, and the possible extension of their application from the agricultural sector to industrial products.

Order as PB 90-205485 from NTIS.

The following documents are available upon request from SCI.

o tbt news

This newsletter provides information on government programs and available services established in support of the GATT Agreement on Technical Barriers to Trade (Standards Code). tbt news reports on the latest notifications of proposed foreign regulations; bilateral consultations with major U.S. trade partners; programs of interest to U.S. exporters; and availability of standards and certification information. Subscription is free upon request.

o Technical Barriers to Trade

This booklet explains the basic rules of the international Agreement on Technical Barriers to Trade negotiated during the Tokyo Round of the Multilateral Trade Negotiations (MTN), and describes Title IV of the U.S. Trade Agreements Act of 1979 which implements the United States' obligations under the Agreement. The Agreement, popularly known as the Standards Code, was designed to eliminate the use of standards and certification systems as barriers to trade. The booklet describes the functions of the Departments of Commerce and Agriculture, the Office of the U.S. Trade Representative, and the State Department in carrying out the U.S.'s responsibilities.

o "GATT Standards Code Activities"

This brochure gives a brief description of NIST's activities in support of the Standards Code. These activities include operating the U.S. GATT inquiry point for information on standards and certification systems; notifying the GATT Secretariat of proposed U.S. regulations; assisting U.S. industry with trade-related standards problems; responding to inquiries on foreign and U.S. proposed regulations; and preparing²⁹³ reports on the Standard Code.

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o GATT Standards Code Activities of the National Institute of Standards and Technology

This annual report describes the GATT Standards Code activities conducted by the Standards Code and Information Program for each calendar year. NIST responsibilities include operating the GATT inquiry point, notifying the GATT Secretariat of proposed U.S. Federal government regulations which may affect trade, assisting U.S. industry with standards-related trade problems, and responding to inquiries about proposed foreign and U.S. regulations.

o Free handout material on office activities and standards-related information such as: government sources of specifications and standards; foreign standards bodies; U.S. standards organizations; and a brochure on the National Center for Standards and Certification Information (NCSCI).

In addition to general inquiry services, the following assistance is also available:

o EC Hotline

This hotline reports on draft standards of the European Committee on Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC) and the European Telecommunications Standards Institute (ETSI). It also provides information on selected EC directives. The recorded message is updated weekly and gives the product, document number and closing date for comments. The hotline number is (301) 921-4164 (not toll-free).

o GATT Hotline

A telephone hotline provides current information received from the GATT Secretariat in Geneva, Switzerland, on proposed foreign regulations which may significantly affect trade. The recorded message is updated weekly and gives the product, country, closing date for comments (if any) and Technical Barriers to Trade (TBT) notification number. The hotline number is (301) 975-4041 (not toll-free).

o NCSCI provides assistance to U.S. and foreign exporters in obtaining current standards, regulations and certification information for the manufacture of products. To aid foreign exporters, NCSCI also provides directory information of state offices prepared to respond to queries concerning conditions to be met by goods for sale in their state.

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Contacts for Publications:

SCI - Send a self-addressed mailing label with request to:
Standards Code and Information Program
National Institute of Standards and Technology
Administration Building, Room A629
Gaithersburg, Maryland 20899, USA
For further information, call (301) 975-4029

GPO - Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402, USA
Telephone: (202) 783-3238
Fax: (202) 275-2529

NTIS - National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22161, USA
Telephone: (703) 487-4650
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