

Report on the Open Forum on Establishment of the National Council for Laboratory Accreditation (NAGLA) at the National Institute of Standards and Technology January 7, 1997

> Janice S. Jablonski Editor

Walter G. Leight Editor

U.S. DEPARTMENT OF COMMERCE Technology Administration National Institute of Standards and Technology Gaithersburg, MD 20899-0001

QC 100 U56 NO.6008 1997



Report on the Open Forum on Establishment of the National Council for Laboratory Accreditation (NACLA) at the National Institute of Standards and Technology January 7, 1997

Janice S. Jablonski Editor

Walter G. Leight Editor

U.S. DEPARTMENT OF COMMERCE Technology Administration National Institute of Standards and Technology Gaithersburg, MD 20899-0001

March 1997



U.S. DEPARTMENT OF COMMERCE William M. Daley, Secretary

TECHNOLOGY ADMINISTRATION Mary L. Good, Under Secretary for Technology

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY Robert E. Hebner, Acting Director

FOREWORD

The following announcement for the open forum on establishment of the National Council for Laboratory Accreditation (NACLA), to be held at the National Institute of Standards and Technology, was distributed to thousands of potentially interested organizations and individuals. A program agenda was provided to encourage a broad cross-section of representatives to attend and participate in discussions. The issues to be addressed related to changing the U.S. multifaceted approach to laboratory accreditation and seeking support for a proposal to establish a public-private partnership for implementing a national system for laboratory accreditation with the goals of facilitating domestic commerce and achieving international acceptance of test data generated by laboratories in the United States.

Announcement of the Open Forum Tuesday, January 7, 1997

National Institute of Standards and Technology

Open Forum on: Establishment of the National Council for Laboratory Accreditation (NACLA)

An open forum will be held at the National Institute of Standards and Technology on January 7, 1997, to discuss the establishment of the National Council for Laboratory Accreditation (NACLA). NACLA is proposed as a cooperative partnership between the public and private sectors that provides for realization and implementation of a comprehensive U.S. laboratory accreditation infrastructure for national and international recognition and acceptance of accredited laboratory competence. It is envisioned as an organization with active participation by all affected interests: laboratories, accreditors, and those who require accreditation, both from industry and government.

NACLA will specify uniform procedures based on national and international standards and guides for organizations that accredit calibration and testing laboratories. National and international acceptance of their competency will be achieved through NACLA recognition. All parties of interest will benefit from widespread acceptance of the results of tests (performed only once) on a given product. This will eliminate the current duplication, reduce costs, and lead to one-stop shopping.

The meeting will provide a forum for discussion of the NACLA planning documents. It is intended to develop a consensus to establish NACLA as the unifying organization to meet national needs for laboratory accreditation. Presentations will include accreditation issues, background, and future organizational plans. Attendees are invited to discuss all aspects of the plans.

TABLE OF CONTENTS

P	ag	е
---	----	---

ABSTRACT		vi
AGENDA		vii
PLENARY SESSION		1
Developme	ent of the NACLA Proposal	5
Stakeholder Breakout Sessions		7
STAKEHOLDER BREAKOUT SESSION REPORTS		9
Group 1 - Industry Representatives		11
Group 2 - Accrediting Body Representatives		12
Group 3 - Government Representatives		14
Group 4 - Laboratory Representatives		17
Group 5 - Industry Representatives		18
Group 6 - Laboratory Representatives		20
OPEN DISCUSSION AND NEXT STEPS		23
Open Discussion		25
Next Steps		27
Nominating Committee Report		28
APPENDIX A:	Proposed Structure for the National Council for Laboratory Accreditation	A-1
APPENDIX B:	Presentations	B-1
APPENDIX C:	Final List of Participants	C-1
APPENDIX D:	NACLA Interim Board of Directors	D-1

ABSTRACT

An Open Forum on Establishment of the National Council for Laboratory Accreditation (NACLA) was held at the National Institute of Standards and Technology (NIST), in Gaithersburg, Maryland on January 7, 1997. The forum was jointly sponsored by NIST, ACIL (formerly the American Council of Independent Laboratories), and the American National Standards Institute (ANSI). It was attended by more than 300 representatives from private industry and the government. The purpose of the Forum was to discuss a proposal to establish the National Council for Laboratory Accreditation (NACLA), which would be a cooperative partnership between the public and private sectors designed to provide a national infrastructure for laboratory accreditation in the United States. The agenda for the Forum included a keynote address by Dr. Mary Good, Under Secretary of Commerce for Technology, presentations on the history of the joint NIST/ANSI/ACIL effort to address the problems of laboratory accreditation in the United States and the development of the NACLA proposal, six stakeholder breakout sessions, an open discussion, a presentation of next steps to be taken toward the establishment of NACLA, and a presentation concerning the process for nominating an interim Board of Directors for NACLA.

The six stakeholder breakout sessions included two sessions each for industry and laboratory representatives, and one session each for accrediting bodies and government representatives. Each of the two-hour sessions addressed the following topics:

- How NACLA participation will benefit stakeholders;
- > Potential disincentives or disadvantages to NACLA participation;
- Key strengths and weaknesses of the proposed NACLA organizational structure and operating functions;
- > Key issues for NACLA to address; and
- > The concept and composition of and Interim NACLA Board of Directors.

In the afternoon plenary session, a representative from each breakout session presented a report on the outcome of the group discussions.

The NACLA proposal included provisions for appointing an Interim Board of Directors for NACLA, consisting of four representatives from the laboratory community, four representatives from industry, four government representatives, three accrediting body representatives, and two general interest representatives. The proposal further suggested that the Interim Board be Chaired by a representative from NIST. Participants were encouraged to nominate prospective Board members, in writing, by February 7, 1997. Final selection of the Interim Board was to be made by the Laboratory Accreditation Work Group (LAWG) Steering Committee on February 19, 1997.

AGENDA Open Forum on Establishment of the National Council for Laboratory Accreditation

January 7, 1997

National Institute of Standards and Technology Red Auditorium Gaithersburg, Maryland

- 8:00 AM Registration
- 8:45 AM Welcome to NIST Dr. Robert Hebner, NIST
- 8:55 AM Chairman's Opening Remarks, Mr. Sergio Mazza, ANSI
- 9:00 AM Keynote Address, Dr. Mary Good, Department of Commerce
- 9:30 AM Recapitulation of LAWG History Mr. Joseph O'Neil, ACIL
- 9:45 AM NACLA Summary Dr. Belinda Collins, NIST
- 10:15 AM Procedures for Breakout Sessions Ms. Jan Jablonski, consultant
- 10:30 AM Break
- 10:45 AM Breakout Sessions
- 12:45 PM Lunch (NIST Cafeteria)
- 1:45 PM Reports from Breakout Sessions
- 2:30 PM Open Discussion moderated by Mr. Sergio Mazza
- 3:15 PM Next Steps Mr. Walter Leight, NIST
- 3:45 PM Nominating Committee Report Mr. Joseph O'Neil
- 4:15 PM Concluding Remarks Mr. Sergio Mazza

ann can the teaching of the second second

PLENARY SESSION

VOR283 PENELP

Report on the January 7, 1996 Open Forum Plenary Session

OPEN FORUM ON ESTABLISHMENT OF THE NATIONAL COUNCIL FOR LABORATORY ACCREDITATION

January 7, 1997

Plenary Session

An Open Forum on Establishment of the National Council for Laboratory Accreditation (NACLA) was held from 9:00 AM to 4:30 PM in the Red Auditorium at the National Institute for Standards and Technology (NIST), in Gaithersburg, Maryland. The forum was jointly sponsored by NIST, ACIL (formerly the American Council of Independent Laboratories), and the American National Standards Institute (ANSI). It was attended by more than 300 representatives from private industry and the government. **Mr. Sergio Mazza, President of ANSI**, served as Chairman of the forum.

Dr. Robert Hebner, Acting Deputy Director of NIST, welcomed the group to NIST and provided a brief overview of NIST programs. He stated that NIST hoped to achieve three objectives at the forum, which were to understand:

- How the private sector views the current laboratory accreditation system in the United States; how it is working and how it should work in the future;
- > What role NIST should play in the U.S. laboratory accreditation system; and
- Who the ultimate customers for laboratory accreditation are and what their needs are.

He noted that NIST believes the forum is a very important step toward improving the system of laboratory accreditation in the United States.

In his opening remarks, Mr. Mazza reminded participants that the effort that led to the proposal for NACLA began over two and one-half years ago when NIST, ACIL and ANSI first met to address the need to coordinate laboratory accreditation in the United States. Mr. Mazza noted that five principal points have predominated in the subsequent discussions:

- International acceptance of test data generated in the United States is an important competitive issue;
- Domestic acceptance of U.S. test data is complicated by a patchwork of multiple accreditation systems;

- There is a general lack of confidence in U.S. accreditation systems in both the public and private sectors;
- There is a lack of widespread use of international standards as common baseline criteria by U.S. laboratory accreditation programs; and
- There is a compelling need to address these problems in a comprehensive and meaningful way.

Mr. Mazza stated that the purpose of the forum would be to focus attention on the concept of a national council for laboratory accreditation as an effective means for addressing these key points. His objective for the day was to find common ground over which all stakeholders can move forward together.

Dr. Mary Good, Under Secretary of Commerce for Technology, provided the Keynote Address. She noted the progress that has been made by the Laboratory Accreditation Working Group (LAWG) under the joint leadership of ANSI, ACIL and NIST. LAWG has made considerable progress in defining the problems associated with the existing laboratory accreditation system in the United States, understanding the needs of the ultimate users of laboratory accreditation, and developing a proposal for taking action to correct existing problems and to make the system more responsive to users.

Dr. Good noted that laboratory accreditation began as an initiative of the laboratory industry. They viewed accreditation as a means for distinguishing among laboratories on the basis of competency, and sought independent third party accreditation to weed out poor performers. In the early 1970's, she noted, the laboratory industry asked NIST to establish a laboratory accreditation program. Since then, NIST has been an accreditor. NIST's role changed when President Clinton signed the Technology Transfer and Advancement Act in March of 1996, giving NIST responsibility for coordinating conformity assessment activities in both the public and private sectors. Dr. Good emphasized NIST's role and stated that, consistent with that role, NIST's purpose in participating in the forum was to facilitate the development of a credible U.S. domestic system for laboratory accreditation that addresses both domestic and international trade issues. She stated the need for a workable system that will be recognized as competent by all those who require accreditation domestic and international agencies and industry. Dr. Good also noted that in order to work well, the U.S. laboratory accreditation system must allow manufacturers and other users to be confident that test data are generated by qualified laboratories using valid test methods and reliable operating procedures. The system must also allow governments at all levels within the United States to be confident that test data used to demonstrate regulatory compliance or conformance to purchasing specifications are valid and reliable.

In closing, Dr. Good reminded participants that in October 1995, at a previous open forum on laboratory accreditation, a consensus emerged on the following points:

- Use of international standards should be the basis for reciprocity among laboratory accreditation programs in the United States;
- > There should be international acceptance of the U.S. system;
- > High-quality accreditation and sound laboratory data must be preserved;
- Greater education of users is needed;
- Government programs involving laboratory accreditation need to be coordinated; and
- The common goals and interests of government and industry in this area should be explored.

She noted that the LAWG proposal for the NACLA infrastructure would address all of these objectives and that she expected sufficient ground work to be laid by the end of the forum to move toward establishment of NACLA.

Development of the NACLA Proposal

Mr. Joe O'Neil, President of ACIL, provided a brief historical summary of the activities of the Laboratory Accreditation Working Group (LAWG). He highlighted the following milestones, which led to the development of the proposed NACLA structure:

- May 17, 1994: the first meeting of ANSI, ACIL, and NIST was held to discuss the status of laboratory accreditation in the United States.
- August 22, 1994: the first open meeting of the NIST/ANSI/ACIL publicprivate partnership on laboratory accreditation was held, attended by approximately 50 representatives from industry, the laboratory community, accrediting bodies, standard-setting organizations, and government.
- Fall of 1994: LAWG Task Groups representing manufacturers, laboratories, accreditors, government organizations, and international concerns gathered interested individuals to discuss laboratory accreditation issues.
- December, 1994: the LAWG Task Group Co-Chairs met to report on the results of their task group discussions.
- January, 1995: the first meeting of the LAWG Steering Committee was held. The Steering Committee included representatives from the government, laboratories, industry, standard-setting organizations, and accrediting bodies.

- February 22, 1995: the National Research Council published its report entitled: "Standards Conformity Assessment and Trade Into the Twenty-First Century," which affirms the need for improvements in the U.S. system for conformity assessment, including laboratory accreditation.
- Summer, 1995: the LAWG Steering Committee and Task Groups developed their vision for the U.S. laboratory accreditation system:

"A U.S. laboratory accreditation system that includes a cooperative relationship among the public and private sectors and that achieves:

For the testing laboratory, a single accreditation in a given field of testing with world wide recognition of the laboratory's competence.

For the user, a test performed once with world wide acceptance."

- October 13, 1995: NIST, ANSI, and ACIL jointly sponsored an open forum on laboratory accreditation.
- March, 1996: the Technology Transfer and Advancement Act was enacted, giving NIST responsibility for coordinating conformity assessment in the United States.
- April, 1996: the LAWG Steering Committee generated its first draft concept paper on NACLA and its operating functions.
- November, 1996: the LAWG Steering Committee finalized its concept paper on the proposed structure and operating functions of NACLA for presentation at the 1997 open forum.

Dr. Belinda Collins, Director of the Office of Standards Services at NIST, presented an overview of the proposed NACLA concept. For purposes of background, Dr. Collins reminded participants of some of the problems with the current U.S. system of laboratory accreditation. For example, she noted that individual laboratories pay an estimated \$10 thousand to \$50 thousand annually for laboratory accreditations and that there are more than 150 accrediting bodies in the United States, the majority of which do not recognize each others' accreditations. At the Federal, state, and local levels of government, laboratory accreditations are sector-specific, with no formal or other means of extending reciprocity and little or no coordination among programs.

She noted that a national system for laboratory accreditation, such as the NACLA proposal, offers an opportunity to achieve a coordinated, cost-effective system that is built on a consensus approach. Dr. Collins also noted that the proposed structure for NACLA represents a public-private

partnership which will allow for all viewpoints to be heard. She reviewed the guiding principles that formed the basis for NACLA, which include:

- NACLA must be a formally chartered, identifiable private sector body with government participation;
- NACLA must be able to realize the vision of universal acceptability of test results by competent laboratories accredited by NACLA-recognized accreditors;
- NACLA must implement a comprehensive and rigorous domestic system for laboratory accreditation;
- NACLA must use widely recognized international standards and guides as the basis for its standards and procedures; and
- NACLA must implement a system for recognizing competent accreditors based on rigorous, uniformly applied standards.

Dr. Collins stated that agreement among all stakeholders will be the key to NACLA's success. To accomplish this goal, NACLA will have to allow for diversity in laboratory accreditation programs while implementing a system that reduces the overlap and duplication in the current system.

Dr. Collins stated that NACLA should include members from both the private and public sectors. Membership should be voluntary and open to anyone who subscribes to the NACLA vision, principles, and protocols. The LAWG proposal calls for establishment of a Board of Directors with governing and policy making responsibilities. NACLA's operating functions would focus initially on development of standards for assessing accrediting bodies. In the future, NACLA would serve as the U.S. focal point for laboratory accreditation and would develop and represent U.S. positions on laboratory accreditation within the international community.

Stakeholder Breakout Sessions

Six stakeholder breakout sessions were organized, each facilitated by a member of the LAWG Steering Committee, as follows:

- Group 1 Industry Representatives, led by Mr. Lou Dixon of the Ford Motor Company;
- Group 2 Accrediting Body Representatives, led by Mr. Peter Unger of the American Association for Laboratory Accreditation (A2LA);

- Group 3 Government Representatives, led by Mr. Richard Baldwin of the U.S. Food and Drug Administration;
- Group 4 Laboratory Representatives, led by Ms. Lynne Neumann of Entela, Inc.;
- Group 5 Industry Representatives, led by Ms. Kim Phillipi, of Entela, Inc.; and
- Group 6 Laboratory Representatives, led by Mr. David Krashes of the MMR Group, Inc.

Each of the two-hour breakout sessions addressed the following topics:

- > How NACLA participation will benefit the stakeholders.
- > Potential disincentives or disadvantages to NACLA participation.
- Key strengths and weaknesses of the proposed NACLA organizational structure and operating functions.
- > Key issues for NACLA to address.
- > The concept and composition of an Interim NACLA Board of Directors.

In the plenary session which followed the breakout sessions, a representative from each group presented a report on the outcomes of group discussions.

STAKEHOLDER BREAKOUT SESSION REPORTS

OPEN FORUM ON ESTABLISHMENT OF THE NATIONAL COUNCIL FOR LABORATORY ACCREDITATION

January 7, 1997

Stakeholder Breakout Session Reports

Group 1 - Industry Representatives

Report presented by: Mr. Lou Dixon, Ford Motor Company

- 1. Stakeholder Benefits
 - Reduce costs from laboratories to manufacturers and customers
 - Reduce number of audits
 - Lower administrative costs
 - Faster time to market
 - Facilitate Mutual Recognition Agreements (MRAs)
 - Level U.S. and international playing field
 - Mutual recognition of test results among participants
- 2. Disincentives/Disadvantages
 - Fewer accrediting bodies
 - "Downsize" state/local accrediting agencies
 - Additional fees (will industry get what they pay for?)
 - Voluntary vs. mandatory program
- 3. Strengths/Weaknesses

Strengths:

- Government authority if full participation
- Uniform evaluating system for accreditors
- Industry participation
- Diversity of participants
- Board of Directors to include international perspective

Weaknesses:

- Overlap between NACLA and NELAC
- Larger groups make consensus more difficult
- Unspecified size of committees

4. Key Issues

- Power of enforcement
- Lowest common denominator or impossible high standards for accreditation (need to develop workable standards)
- Regulatory authorities must participate
- Participate in the review and revision of OMB Circular A-119
- Transparent and open participation
- Anti-trust (accreditors)
- Mutual acceptability internationally
- Accelerate process to facilitate commerce
- Exclusion of non-U.S. entities
- Consider existing models

Group 2 - Accrediting Body Representatives

Report presented by: Mr. Peter Unger, A2LA

- Mr. Fred Grunder, American Industrial Hygiene Association (AIHA)
- Mr. C. E. Ramani, ICBO Evaluation Services

Benefits:

- International recognition
- Standardization
- Improved quality of accreditation systems
- Proficiency testing improvements
- Credibility
- One umbrella
- Reciprocity
- Consistency
- Self-regulation
- Technical competence of laboratories
- Greater value to laboratory customers
- Minimize proliferation
- Simplified mechanism

Disadvantages:

- Surrender of autonomy
- Some may go out of business
- Costs (laboratories/accreditors)
- Additional requirements to meet
- Dilution of quality

- Liability
- Time
- Forced change

Strengths:

- Flexibility
- Uniformity
- Broad-based support
- Voluntary
- Increased credibility
- Public participation
- Breadth and generality
- NIST umbrella
- Increased authority

Weaknesses:

- Flexibility
- Bureaucracy
- Implementation
- Lack of authority (Federal mandate)
- Cost
- Lack of participation by Federal agencies
- Response time
- Lack of permanent staff
- Small organization participation
- Lack of stakeholder checks and balances

Key Issues:

- Implementation/obstacles
- Acceptability of program
- Recognition
- Process vs. diversity
- Horizontal vs. vertical
- Anti-trust
- Authority/legislation
- Standardization issues
- Training and education
- Cost
- Liability

Composition of Board:

Three groups with equal representation:

- Accreditors
- Laboratories
- Users

Government and non-government representatives for all three groups

Operations Committee:

- Composition
- Process (most important)
- Several models exist (e.g., EAL/APLAC, CLIA, NVCASE)

Group 3 - Government Representatives

Report presented by: Mr. Richard Baldwin, U.S. Food and Drug Administration

- 1. Statement of support for NACLA.
 - Lukewarm, mixed (because it is a lofty goal, much detail yet to be developed)
 - Support in principle -- but need more specific detail on process
 - Have not yet outlined a mechanism to assure acceptance of each others' processes and accreditations
 - Need many more meetings (confidence building, exchange of documents, and commitment that this is worth doing)
 - Weaknesses need to be addressed in detail
 - The international arena is going to force U.S. action on the issue (an EAL/NACLA agreement would have tremendous force)
 - Congress at this point is asking us nicely to do this (it could become more forceful if there is not internal U.S. cooperation to act)
 - Need a strategy to get "head of agency" support (e.g., Mary Good to convene such a group, then get top-level agency support and buy-in)
 - "Conditional love" at this point -- agencies must get more details and then determine their intent for participation
- 2. What are the advantages / disadvantages to NACLA participation?

Advantages:

- Consumer baseline for accreditation procedures

- Standardization, reciprocity
- Fewer regulatory interactions
- Less financial resource utilization
- Promotes commerce and decreases cost of commerce
- Increase quality of testing and calibration data
- Less governmental intrusion (privatization)
- Get rid of poor labs through increased competition/quality
- Increase public safety
- Simplify requirements, decrease duplication, leading to better compliance
- Better compatibility between products
- Decrease non-tariff trade barriers, foster commerce
- Give a stronger voice internationally in standards development (i.e., better coordination of U.S. input)
- Bringing together diverse interests in a powerful way (i.e., greater voice)
- Increase U.S. government input into international standards
- Decrease duplicity
- Facilitates the introduction of new technology (i.e., increase ease of new technology approval) also technology transfer
- Give U.S. trade negotiators a bargaining chip
- Generally facilitates internal interactions on all fronts trade, negotiations (both dialog and interactions)

Disadvantages:

- Conflict with statutory and regulatory requirements of regulatory agencies (statutory requirements and regulations may be in conflict with NACLA standards, leading to <u>potential diminished authority</u> of regulatory agencies and delegation of authority to non-regulatory entities -- e.g., delegated test methods)
- Single accreditation may be too simplistic (there are multiple test methods for different attributes, also multiple audits are conducted for a broad range of sectors within single lab facilities)
- NACLA will need to hold accreditors to the same technical standards for very different types of laboratories
- International standards as bases may lead to variability of interpretations
- Potential NACLA liability for faulty test data
- NACLA will potentially be in the middle of conflicts over jurisdiction
- Need for <u>specific</u> accreditation and test standards (NACLA needs to specify tests and methods, also accreditation for specific test methods)
- Could be another level of bureaucracy
- Voluntary or mandatory -- potential problems either way
- May force U.S. regulators to accept reciprocity before we are ready (i.e., before everyone plays fairly or before there is a level playing field)

3. Proposed NACLA organizational structure and operational functions:

Strengths

- Allows participation at all levels (including internationally)
- Promotes uniformity of standards
- Makes an attempt to achieve cooperation among stakeholders

<u>Weaknesses</u>

- Accountability/coordination role outlined in law is ambiguous
- Limited to accreditation against international standards vs. national standards
- U.S. standards are law, have implications for manufacturer liability
- What are the international standards and who recognizes them?
- Need procedure for arriving at consensus
- Political change may move more rapidly than the bureaucracy of NACLA (ability to provide continuity to keep pace with rapid political change)
- Proposed structure does not provide a mechanism for achieving consensus among diverse perspectives (stakeholders) on issues of common interest

4. Recommendations:

- Get the interest groups together to communicate ideas and concerns to each other
- Need to build trust among the stakeholders
- Recognize that internationally, we are behind the power curve (the international arena is forcing U.S. action on this issue)
- Need to better understand the international support for NACLA
- 5. The concept and composition of the NACLA Interim Board:
 - Look at the existing 150 accrediting bodies ⇒ see what sectors are represented
 - Needs to be a combination of stakeholders and sectors
 - Maintain a link between standards developers and accreditors
 - Size → 15 to 18 members (3-5 being federal/state government representatives)
 - Chair should be NIST (high-level management)
 - Self-nomination process open to all stakeholders
 - Members should be familiar with ISO Guides 58 and 25, and should thoroughly understand (360° / top to bottom) the accreditation process
 - LAWG selects the Interim Board, but NACLA membership should select permanent board members
 - Look for consensus and ownership on the board
 - Membership on the board is a WORKING commitment (lots to do quickly)

6. Key issues that need to be addressed by NACLA:

- NACLA needs to established good liaison with existing groups
- Need to flush out issues of jurisdiction and authority
- How to determine frequency and length of accreditation.
- Accreditation scheme needs to accommodate diversity. (i.e., the process needs to accommodate the variety of activities that take place within a single laboratory)
- NACLA needs to be cognizant of the existing diversity among and within laboratories, and coordination needs to be situational to individual issues
- Practical application of international guidelines and standards (the outcome must lead to credible results and high quality products)
- Money speaks (perceived loss of fees from accreditation/licensing activities)
- How to actually achieve U.S. government reciprocity
- What to do if international standards are lower than U.S. standards
- Need confidence-building <u>within</u> the U.S. regarding laboratory accreditation (i.e., what do we mean by accreditation, and what do we expect? -- the requirements in <u>ISO Guide 25</u> are very basic)
- Legal aspects of voluntary versus mandatory participation (can the government hold contractors to this process if it is a voluntary system?)
- Issue of a national mark (like a CE mark) -- will NACLA have one?
- How will NACLA be funded (i.e., the nature of funding)? -- membership fee, etc.? (NIST is willing to provide a secretariat on an interim basis, but ultimately NACLA needs to be self-sustaining, and costs/fees need to remain low)
- NACLA needs to develop "recognition criteria" (similar to <u>ISO Guide 58</u>) to recognize accreditors
- What are the incentives and mechanisms to realize NACLA's objectives (need more detail on process)?
- How is NACLA going to bring stakeholders together, regardless of who they are?
- How does NACLA assure the technical expertise of their technical auditors?
- Need to develop similarity of requirements for sector groups
- NACLA needs to explain the details, and facilitate further discussion among those with common interests
- How to handle privileged information of independent and industry laboratories (confidentiality issues)
- How will NACLA handle dishonesty, fraud, etc. (enforcement issues)?
- What is an accrediting body?

Group 4 - Laboratory Representatives

Report presented by: Ms. Lynne Neumann, Entela, Inc.

1. Benefits to Laboratories

- Eliminate multiple accreditation
- International and national recognition
- Meaningful accreditation status
- Reduce artificial trade barriers
- Increase productivity
- 2. Potential Disadvantages
 - Additional levels of cost and bureaucracy
 - Coordinating groups
 - Timeliness of goals (how quickly can this be achieved?)
 - Forced to accept standards which do not meet our minimum quality level
 - Funding
 - "Flavor of the Month" managements
- 3. Key Strengths and Weaknesses
 - Volunteer participation
 - Conflicts of interest
 - Key contact for recognition of U.S. system
 - What are the incentives for accreditation bodies to become participants?
 - How are QC, product certification, and data validation to be addressed?
- 4. General Concerns
 - Develop trust and confidence between accreditors
 - Marketability of accreditation
 - Value to laboratories
 - Expand the number of accreditation bodies (increased competition)
 - Structure to gain authority
 - NACLA assessor validation
 - International and domestic acceptance
 - NACLA should not be an accreditor of laboratories
 - Address reciprocity

Group 5 - Industry Representatives

Report presented by: Mr. Gerald Ritterbusch, Caterpillar, Inc.

- 1. Benefits to Industry
 - High quality data that are comparable
 - Common standards, guidelines, and procedures for audits

- NACLA will be a forum for discussion
- Want test data to be accepted by other bodies (domestic and international)
- Improve government confidence in laboratories and laboratory data
- NACLA will provide guidance for and demand consistency in audits

2. Disincentives/Disadvantages

- Laboratories may experience changes in market share they must recognize that their market can be increased by wider acceptance of test data
- Additional level of accreditation without it being mandated. Is there an incentive to participate?
- Agreement on the definition of "good"
- NACLA lacks enough detail for understanding all of the issues. Could it create a wider disparity between laboratories?

3. Strengths/Weaknesses

Strengths

- Compactness Board and 2 committees
- Stakeholders have opportunity to participate in shaping the outcome
- Single operations committee to produce common interpretations

<u>Weaknesses</u>

- No link to international accreditations
- No defined link to NVCASE
- Not all encompassing in conformity assessment (product certification)
- Need milestones for further steps in the total conformity assessment world (standards and listing agencies)
- Need to know what it will look like when mature
- 4. Key Issues to Be Addressed
 - Stakeholders must fully participate
 - Need to market those who will realize benefits
 - Government agency participation
 - How does NACLA make sure that their program produces reciprocity with accreditors and laboratories?
 - Expedite operation to ensure no new intervention by Congress or government agencies
 - Must ensure that data from laboratories are comparable
 - Adequate funding for viability

5. NACLA Board of Directors Issues

- International liaison
- Use existing models/systems for harmonization
- Government agency participation: (EPA, FDA, FA, OSHA, FCC, HUD, DOE, CDC)

Group 6 - Laboratory Representatives

Report presented by: Mr. David Krashes, MMR Group, Inc.

- 1. Benefits to Laboratories
 - Avoid multiple audits
 - Accreditation will be respected worldwide
 - Accreditation based on one standard
 - Save money
- 2. Potential Disincentives or Disadvantages
 - Don't want a bureaucracy
 - Solving international problems before domestic problems
- 3. Strengths and Weaknesses

Strengths

- Will be good for laboratories (almost unanimous)
- Everybody pulls together

<u>Weaknesses</u>

- Environmental laboratories are split off
- NIST has NVLAP
- If government agency (Federal or state) doesn't have to comply, it won't
- No time line established for NACLA to start approvals
- No "hammer" to force compliance with NACLA
- 4. Key Issues for NACLA to Address
 - Lack of a government directive or law to mandate implementation
 - Industry acceptance of NACLA
 - Getting accrediting bodies to agree on one standard
 - Obtaining effective and meaningful input from the laboratory community

- Establishing reasonable costs
- Timely implementation
- 2/3 believe the problem is domestic; 1/3 believe the problem is international
- Will laboratories have access to NACLA's ratings of accreditors?
- NACLA must do the job well enough to ensure that all accreditors are credible

5. Other Recommendations

- Moderate annual dues are acceptable
- There must be a way to achieve reciprocity (both by accreditors and laboratory users)

Repart on the January 2, 1967 Upon Foran Stele holder Breaknut Smallon Reparts

Establishing entropy systems and a second systems of the second systems and the second systems and the second systems and the second systems are second systems and the second system are second systems The second systems are second systems

- 2/3 behave the moustain to immunity of the second second second

A WILLENG ALL AND THE COMPANY AND A COMPANY AN

Other Seusmin on Gills h

Moderate all how water and analyzing on his States and his second of the second of the

OPEN DISCUSSION AND NEXT STEPS

OPEN FORUM ON ESTABLISHMENT OF THE NATIONAL COUNCIL FOR LABORATORY ACCREDITATION

January 7, 1997 Open Discussion and Next Steps

Open Discussion

Following the presentation of reports from the stakeholder breakout sessions, Mr. Mazza invited participants to ask questions or make comments on the issues presented. Questions were addressed by a panel consisting of Mr. Mazza, Dr. Collins and the group leaders. A summary of the questions, comments and responses follows.

Comment: Mr. Howard Forman, an attorney who specializes in alternative dispute resolution, encouraged the NACLA Interim Board to consider using alternative dispute resolution techniques to resolve conflicts as they arise in the process of establishing NACLA.

Question: Mr. Leonard Frier, of Met Laboratories, Inc., asked whether NACLA would be an accreditor of accrediting bodies or a coordinator of accrediting bodies.

Mr. Mazza responded that NACLA is not intended to be "super accreditor." Instead, NACLA would employ a peer review process which will allow accrediting bodies in the United States to recognize each others' work.

Comment: Mr. Ross Hansen, Quality Assurance Manager for Retlif Laboratories, stated that laboratory representatives have contended strongly that the laboratory community does not welcome an additional layer of accreditation bureaucracy. He further suggested that NACLA implementation go forward with a sunset clause that would call for the activity to stop if some or all of its goals are not accomplished in 18 to 24 months. Mr. Hansen also stated that he believes NACLA should focus on addressing domestic issues related to laboratory accreditation as its first priority.

In response, Mr. Mazza noted that government representatives agreed in their breakout session that issues of international recognition are likely to be an important factor motivating participation in NACLA by regulatory agencies.

Comment: Ms. Joanne Wilson of Lucent Technologies, stated that the proposed operating function for NACLA will make it an accreditor of accrediting bodies.

Mr. Unger stated in response that NACLA, like numerous similar European organizations, will have both a coordinating (horizontal) and an oversight (vertical) function to fulfill. Mr. Mazza noted that this has been an important issue for the LAWG Steering Committee for some time. He further stated that, in order to achieve international recognition, NACLA will have to recognize accreditor competency.

Question: Mr. Joseph Cotruvo, of NSF International, asked the panel what incentives they see for accrediting bodies to reach consensus on an accreditation standard and process.

In response, Mr. Unger stated that accrediting bodies maintain an interest in NACLA in order to respond to the concerns of their clients: laboratories interested in reducing redundance and overlap in accreditation. Mr. Mazza agreed that much of the motivation for LAWG came out of a recognition by accreditors that they needed to respond to the demands of their market place. Mr. Dixon noted that industry representatives also have expressed a strong desire for a reliable accreditation system on which manufacturers can rely, instead of qualifying laboratories themselves.

Comment: Mr. John Locke, former President of A2LA, described the process by which the EAL grants accreditations, using a group of peer reviewers to assess accreditors and make a recommendation to the governing body of EAL.

Comment: Ms. Deborah Rade of Underwriters Laboratories, stated that she does not believe that a significant case has been made for establishing NACLA, and that further work should be done to demonstrate its potential benefit to the American public and to public safety, before proceeding with implementation.

Mr. Krashes noted that, within his breakout group, there was virtually unanimous agreement that NACLA would be beneficial.

Ms. Rade further stated that it has not been demonstrated that NACLA is the appropriate organization to address the problems that have been identified. She suggested that a better approach would be to allow Congress to provide a statutory mandate for NACLA, or a similar organization, through Federal legislation. In response, Mr. Mazza noted that Congress has already provided a gentle prod in the form of the Technology Transfer and Advancement Act of 1996, which requires NIST to coordinate conformity assessment in the United States. He further stated that, consistent with that statutory mandate, NACLA is intended to be a forum that brings together all stakeholders for purposes of agreeing on reasonable solutions to the problems we have identified.

Comment: Mr. George Marinenko of Waste Policy Institute noted, in response to Ms. Rade, that unanimous agreement is not necessary to establish the consensus opinion that NACLA should proceed. Rather, he stated, a majority is sufficient to indicate consensus.

Mr. Krashes stated that he was willing to stand and be counted as being in favor of NACLA and stated that others in the room were welcome to stand with him (whereupon a large majority of meeting participants stood and applauded to show their agreement that NACLA should proceed).

Question: Mr. Thomas Wiand of Hart Scientific, noted that calibration laboratories have a unique set of concerns related to laboratory accreditation, which differ from those of the testing laboratory

community. He asked the panel whether they would agree to establish a separate delegation or group to represent calibration laboratories.

In response, both Dr. Collins and Ms. Neumann agreed that the perspectives of the calibration laboratory community are both unique and important to NACLA and that input from a calibration laboratory delegation would be welcome.

Comment: Mr. Troy Stallard, President of Standards Laboratories, Inc. and Chairman of ACIL, stated that ACIL believes that the only real alternative that we have today is for a single accreditation system such as NACLA. He further stated that ACIL endorses NACLA and would like to see it go forward.

Comment: Mr. Ed Nemeroff, Vice President of the National Conference of Standards Laboratories, stated that he and NCSL President, Mr. Kevin Ruhl, would request that the NCSL Board of Directors appoint a delegation from its membership to be an active part of NACLA.

Next Steps

Mr. Walter Leight, Deputy Director of the Office of Standards Services at NIST, provided a brief summary of the next steps to be taken by the LAWG Steering Committee, as follows:

- A report on the proceedings of the open forum will be prepared and distributed.
- Nominations for the NACLA Interim Board of Directors will be accepted until February 7, 1997.
- The nominating committee (established by the LAWG Steering Committee) will review the nominations and present a slate of nominees to the LAWG Steering Committee at its next meeting on February 19, 1997.
- At that meeting, the LAWG Steering Committee will elect the NACLA Interim Board and appoint a Chair for the Board.
- At the close of its meeting on February 19, the LAWG Steering Committee will cease its functions.
- The Chair of the NACLA Interim Board of Directors will convene the first meeting of the Board with staff support offered by NIST.
- The Interim Board will meet to appoint committees, devise procedures and prepare for permanent establishment of NACLA.

At the conclusion of its work, the Interim Board will present its recommendations to the potential membership of NACLA at another open forum.

Mr. Leight stated that nominations for the Interim Board should be forwarded to Mr. Joe O'Neil of ACIL.

Nominating Committee Report

Mr. O'Neil gave a brief overview of the process for establishing the NACLA Interim Board of Directors. He stated that the slate of nominees will be developed and presented by the Nominating Committee established by the LAWG Steering Committee in the Fall of 1996. Members of the Committee include Mr. O'Neil, Mr. Leight, and Mr. John Locke. Mr. O'Neil noted that their assignment was to nominate a group of people qualified to address all of the issues discussed at this and the previous forum. He further stated that, at the conclusion of its work, the Interim Board will present its proposed by-laws, procedures, practices, and committee structure for NACLA.

Mr. O'Neil stated that, at its meeting in December of 1996, the LAWG Steering Committee agreed to appoint an Interim Board of 18 members with:

- Four laboratory representatives;
- Four industry representatives;
- Four government representatives;
- > Three representatives from accrediting bodies; and
- > Two general interest representatives.

The Steering Committee also agreed that the Chair of the Interim Board should be Dr. Belinda Collins, Director of NIST's Office of Standards Services. He noted that Dr. Collins' appointment as Chair signifies the Steering Committee's belief that it is important to have the visible leadership of NIST continue in this effort.

Mr. O'Neil reiterated that nominations for the Interim Board will close on February 7, 1997 and that all nominations should be mailed or faxed to him at ACIL. He asked that people who are nominated be qualified to address the issues before the Board and that they be willing to commit to participating in three to four meetings during the coming year and to do some work on NACLA issues between meetings. He noted that NIST provided forms for nominations which show his address and fax number and encouraged participants to make nominations as soon as possible.
At the completion of Mr. O'Neil's presentation, Mr. Mazza thanked the participants for their efforts and declared the open forum adjourned.

Report of the Ladiusy V, 4011 Open Par in Open Discussion with You's Skeps

אני להפיוס התקופה הייניו ההגיע של אנונים אלי להמשוע היין השמוע שבליכות שמה אלשיינים. אי הייניים של האיר הבירים פורסטים שמימי לשיטאוגים להיא לקלימים לניטי בין יש לייירומימים, ל, "ב-----

APPENDIX A

Proposed Structure for the National Council for Laboratory Accreditation

人名哈尔马马马克

Propagaled Structure for the Malions' Costral for Examples Arc 10 Sector

"PROPOSED STRUCTURE FOR THE NATIONAL COUNCIL FOR LABORATORY ACCREDITATION" (NACLA)

The National Council for Laboratory Accreditation (NACLA) is made up of those in the United States who actively support development of a system for recognizing the competence of testing and calibration laboratories, and worldwide acceptance of their test and calibration reports.

Background

Since 1994, ACIL (formerly the American Council of Independent Laboratories), the American National Standards Institute (ANSI), and the National Institute of Standards and Technology (NIST) have sponsored an informal Laboratory Accreditation Working Group (LAWG) to examine issues related to laboratory accreditation and recognition in the United States, and to suggest solutions aimed at developing a system for the United States. Concerned with multiple, duplicate assessments and the lack of domestic or international recognition of accreditations, the group explored solutions which could lead the United States toward the goal of one assessment per laboratory accreditation. Development of a credible domestic system for laboratory accreditation must be compatible with international systems so that international recognition of the U.S. efforts is achievable. LAWG solicited input and participation from all players in the process: laboratories, accreditors, industry, and government (Federal, state and local), as well as input from those concerned with international trade issues. The working group agreed on a vision and principles for a system, and identified the needs and desires of the key players, as follows:

- Manufacturers and other users must be confident that the test data from suppliers are generated by qualified laboratories that perform the testing according to valid test methods and which follow appropriate operating procedures.
- Governments at all levels within the United States must be confident that laboratory test data used to demonstrate compliance with regulations or procurement actions are generated by qualified test laboratories using valid methods and procedures.
- Laboratories need a single, consistently-applied mechanism for demonstrating their competence in generating test data and for evaluating their quality assurance procedures, with no duplication of valid assessments.
- o Governments, industry and other users of laboratory test data in the United States need a mechanism for ensuring their confidence in the laboratory test data supplied to demonstrate compliance with their procurement actions, regulations, or standards.
- o Foreign governments also need a means for obtaining recognition of the competence of U.S. laboratory data. The global market requires that laboratory accreditation procedures used on all sides of a trading relationship be similar, transparent, readily available, and based on international performance guides for their performance. Additional procedures may be needed to ensure recognition of the competence of an accreditation done by a particular body.

 Government, industry and other users require a mechanism for recognizing the competence of different laboratory accreditation bodies, while competent accreditation bodies require a level playing field where their accreditations are reciprocally accepted across political boundaries.

On October 13, 1995, an open Forum (see, <u>Proceedings of the Open Forum on Laboratory</u> <u>Accreditation</u>, October 13, 1995, NIST Special Publication 902, 1996) was held to discuss these issues and provide suggestions for solving the problems. During the Forum, consensus emerged on a vision to reduce the problems with the current "system." There was agreement that: international standards should serve as a basis for accreditation and recognition; reciprocity of competent accreditations in the United States is needed; there should be international acceptance of an effective U.S. system; high-quality accreditation and sound laboratory data must be preserved; greater education of users is needed; regulators at all levels (Federal, state, and local) must coordinate among themselves; and that common interest and goals between government and industry must be explored.

Making the Vision a Reality

During the Forum, there was consensus that a single public/private entity to coordinate laboratory accreditation activities within the United States is a reasonable solution. It would allow the needs of the various interest groups to be met, while allowing for competition among accreditors, governmental recognition, and international acceptance. This entity would develop common agreement on procedures for both accreditation and reciprocity of accreditation by all parties. The consensus approach used by standards developers in the country would provide for participation of interested and affected parties in the development of these procedures, and is a central element for the proposed system.

The proposed public/private entity, provisionally entitled the National Council for Laboratory Accreditation (NACLA), is envisioned as a formal arrangement among affected parties who agree on operational procedures. To be effective, NACLA must:

- 1. Agree on and adopt procedures for "recognizing" or "accepting" the competence of these accreditations, again using international guides.
 - a. Agree on and adopt procedures for accreditation of testing and calibration laboratories, using the international guides as a starting point.
 - b. Ensure procedures for withdrawing an accreditation or recognition.
- 2. Provide means for meeting specific Federal regulatory needs, while providing for regulatory recognition of those who meet these needs in their accreditation process.
- 3. Agree on and adopt procedures for internal operations.
- 4. Develop formally constituted basis for NACLA establishment and conduct for assuring that NACLA recognition follows appropriate procedures.
- Work toward an infrastructure in which accreditors recognized as competent by NACLA can be considered for acceptance for both domestic and international requirements. NACLA will:
 - a. Address domestic issues and work to build a system which meets domestic needs and which is compatible with international systems.
 - b. Coordinate the U.S. positions for regional and international activities such as the

International Laboratory Accreditation Cooperation (ILAC), the Asia Pacific Laboratory Accreditation Cooperation (APLAC), and the European Cooperation for Accreditation of Laboratories (EAL), etc.,

- c. Serve as the primary U.S. signatory on behalf of NACLA members for new international laboratory accreditation agreements with foreign national, regional and coordination bodies.
- d. Work toward a truly North-American system for laboratory accreditation.
- 6. Provide means for financial support.

NACLA should be a legally chartered public/private entity that will: agree on criteria and procedures used for accreditation and recognition of accreditation (following international guidelines) in the United States, review uniform implementation of procedures and provide a mechanism for appeal of decisions, provide for governmental (or appropriate industry) recognition of accreditation, and provide U.S. representation to international fora; and provide recognition of U.S. accreditations for foreign governments. Accreditation is performed by accrediting bodies (private and public sector); "official" recognition is provided by governmental bodies. When a number of accrediting bodies are recognized as competent, a user will be able to select among them. Reciprocity among accreditors will be based on a common recognition by NACLA authorities, which can include peer assessment of accreditors if acceptable by the authority requiring accreditation (private sector or regulatory agency). Peer evaluation may take the form of mixed private sector/public sector teams.

NACLA Structure

Vision

The NACLA vision is one of a U.S. laboratory accreditation system that includes a cooperative relationship among the public and private sectors and achieves the following:

For the testing laboratory, a single accreditation in a given field of testing, with worldwide recognition of the laboratory's competence.

For the user, a test performed once, with worldwide acceptance.

Accreditation based on uniform criteria is intended to ensure that a laboratory is qualified to provide data of consistent quality.

Guiding Principles (these principles were developed for presentation at the Forum, but have been modified slightly to serve as principles for the NACLA structure).

- o Realize the Vision: universal acceptability of the results of any valid test or calibration performed by a competent laboratory accredited by a NACLA recognized accreditor.
- o Eliminate duplication and inefficiency in the current laboratory accreditation process and enhance U.S. competitiveness in domestic and global markets.

- Develop a comprehensive and rigorous domestic system, using appropriate domestic and international guides and standards, for recognizing competent laboratories, both governmental and private sector, to promote acceptance of their results by domestic and foreign regulators and product purchasers.
- Exercise appropriate government oversight at Federal, state, and local levels to ensure satisfaction of regulatory requirements (does NOT imply setting of regulatory requirements).
- o Achieve recognition by the U.S. government when such recognition is necessary for a laboratory's accreditation to be accepted by foreign governments.
- Allow for participation by all parties to laboratory accreditation, including consumers, laboratory customers, testing laboratories, accrediting bodies, and organizations (both public and private sector) that require accreditation in the United States.
- Apply appropriate domestic and international guides and standards for accreditation and recognition, and adapt them to meet the special requirements of Federal and state regulatory bodies or particular user's needs (some agencies may need to specify sector requirements for specific regulatory requirements and purposes).
- Ensure that all laboratories (i.e., manufacturer's, third-party independent, and government) are equally eligible to apply for accreditation, and that equivalently rigorous procedures are used to accredit each laboratory in a given field (some regulatory agencies may limit acceptance of accreditation for mandated programs to third-party or independent laboratories).
- Ensure formulation of and adherence to appropriate ethical principles and standards of conduct in all NACLA operations.

Mission

To develop and administer common accreditation procedures that can be accepted by all NACLA parties to provide coordination and focus for laboratory accreditation programs in the U.S. and to serve national and international needs in laboratory accreditation.

Objective

To bring together the various parties who require accreditation, who perform accreditation, and who are accredited, to develop and administer common accreditation procedures that can be reciprocally accepted (regardless of accreditor) by different authorities requiring accreditation. The active participation by government agencies will allow them to ensure that regulatory needs are met without multiple or duplicate accreditations of laboratories, while the active participation by both accreditors and laboratories will allow their input into the development and implementation of technically sound, realistic procedures for accreditation.

Composition

NACLA is a partnership of public and private organizations with an interest in laboratory accreditation: they include government agencies (Federal, state and local), industrial firms and associations, standards organizations, accreditors, laboratories and laboratory associations, and other interested parties.

Authority and Responsibility

NACLA is empowered on behalf of its participating organizations to act in their behalf, and is to be, both nationally and internationally, the U.S. entity to coordinate laboratory accreditation activities, and develop and represent U.S. positions for regional and international organizations dealing with laboratory accreditation with authority in the area of laboratory accreditation. It is hoped that government agencies will participate in and rely on NACLA recommendations in carrying out their regulatory and other governmental responsibilities.

Organizational Structure

<u>Membership</u> - Membership is open to all interested parties who subscribe to the NACLA vision, principles and protocols through a formal application process. Upon application, an organization will state its stakeholder interest.

<u>Board of Directors</u> - The Board is the policy making and governing body of NACLA. It includes a balanced representation from laboratories, assessors, users and other Stakeholder Committees. Representatives may be either public or private sector. ANSI serves, ex officio, as a member of the Board. Board members are elected by their respective group and serve for staggered 3-year terms. The Board maintains liaison with other national and international accreditation and recognition bodies. The Board also serves as the NACLA appeals body.

<u>Operations Committee</u> - The Operations Committee, the technical arm of NACLA, is responsible for granting recognition to accreditors, dealing with standards and assessment issues, operational procedures and other technical matters. It too has broad representation from a balance of affected interests. It is appointed for a fixed term by the Board based on nominations of the Stakeholder Committees.

<u>Stakeholder Committees</u> - Each substantial interest, or stakeholder, will have its own Committee, where its perspectives and specific issues can be discussed and resolved. The Committees will nominate Board representatives and representatives to the Operations Committee. Each new committee must be approved by the Board. Committees envisioned include ("Government" includes all Federal, state and local levels):

Government Regulators, Non-regulatory Officials, Accreditors, Manufacturers and Industries, Trade Associations, Independent and Allied Laboratories, Code Authorities, Professional and Standards Bodies, Council of Consumers and Other Interested Parties.

Any entity that performs more than one function may be represented in more than one committee. Committees are responsible for surfacing issues related to their own constituencies and proposing solutions for decision by the Board.

<u>Secretariat</u> - The Secretariat is responsible for implementing Board Decisions and coordinating Operations Committee activities. The Board will decide at an appropriate time as to who will provide the Secretariat.

NACLA Operational Functions

<u>Accreditation Standards</u> - Relevant national and international standards, such as ISO/IEC Guide 58 for Accreditors, ISO/IEC Guide 43 for Proficiency Testing, and ISO/IEC Guide 25 for Laboratories, should form the basis for procedures used by NACLA participants. In consultation with the Stakeholder Committees, additional procedures must be approved by the Board of Directors.

<u>Assessment of Accreditors</u> - The Operations Committee will coordinate the audits and reviews of accrediting bodies (accreditors). It will develop detailed operating procedures in consultation with the Committee of Accreditors for approval by the Board. (NOTE: One possible assessment model that might be considered is a peer review process, such as that used in EAL and in APLAC. If used in NACLA, the review team for assessment of a private-sector accrediting body might have a majority of private sector accreditors; a review team for a government accreditor would have a majority of accreditors from the government sector. Another possible model is for recognition using appropriate ISO/IEC guides by the authority having jurisdiction, again using appropriate NACLA procedures).

<u>Recognition of Accreditors</u> - Decisions of the Operations Committee will be final, but may be appealed to the Board for final decision.

Listing of Recognized Accreditors and Laboratories - The NACLA Secretariat will maintain a listing of recognized accreditors and access to their lists of accredited laboratories.

<u>Appeals Process</u> - A full-scale appeals procedure will be developed by the Operations Committee and submitted for approval by the Board. If an accreditor applies for recognition by NACLA, but is denied that recognition, it has the right of appeal to the Board of Directors.

NACLA Interface with Regulators and Other Government Bodies - NACLA will actively work to achieve the goal of Federal agency acceptance of NACLA procedures and functions. As applicable, participating Federal agencies are encouraged to work toward harmonization of their accrediting and recognition requirements and practices with those of other public and private sector entities to the extent that the uniqueness of their underlying regulatory and public health laws allow. While special procedures may be needed and developed for a particular sector, these should be applied consistently throughout that sector. NIST will work with the Office of Management and Budget on guidance for Federal agency participation in NACLA to meet its responsibilities under the National Technology Transfer and Advancement Act of 1995 (PL 104-113) to minimize duplication and overlap in conformity assessment activities in the United States.

<u>NACLA Membership Obligations</u> - All NACLA Members shall sign an agreement of mutual commitment to abide by NACLA procedures.

<u>NACLA Interface with the International Community</u> - NACLA will coordinate and advocate U.S. positions that are advanced in international accreditation organizations such as ILAC and APLAC.

LAWG Background on NACLA

The sponsors, along with other representatives and users of laboratory accreditation, undertook preliminary planning of NACLA based upon evaluation of key issues concerning laboratory accreditation. The LAWG Steering Group drafted the "Proposed Structure for the National Council for Laboratory Accreditation," which provides for establishing and implementing NACLA. It provides for uniform procedures for adoption and recognition of laboratory competency in testing and calibration. The planned national laboratory infrastructure includes concepts for organizational structure and operational functions that will provide for national and international recognition. The plan addresses the widely recognized need that unnecessary burdens of laboratory accreditation must be eliminated by a streamlined system that removes current duplication and unnecessary costs in laboratory accreditation.

A public forum was held in October 1995 and reported in NIST Special Publication 902, "Proceedings of the Open Forum on Laboratory Accreditation at the National Institute of Standards and Technology, October 13, 1995." Recognition of the need for a unified national system was found to be essential to satisfy domestic economic requirements and to facilitate trade. It was agreed that any infrastructure, to be successful, must be acceptable to all affected parties with recognition for the results accepted nationally, and even globally.

The establishment of NACLA requires that organizational descriptions are complete and appropriate to the intended purposes and functions, operational procedures and processes. Expansion of details are necessary as well as further refinement of composition of the Board of Directors, Stakeholder(s) Committees and their scope, Secretariat, membership, and other issues leading to "one-stop-shopping" in testing and laboratory accreditation.

The essential concept was put forth in the challenges raised by the National Research Council study of *Standards, Conformity, Assessment and Trade*, ".....domestic policies and procedures for assessing conformity of products and processes to standards require urgent improvement." In the National Technology Transfer and Advancement Act of 1995 (P.L. 104-113), NIST was charged with coordinating Federal, state and local conformity assessment activities with those of the private sector to eliminate unnecessary duplication and complexity. The planned NACLA activities are in response to this challenge.

The discussion of issues at the forum is intended to achieve consensus on the planning document so that an organization which reflects national priorities and needs can be established. Efficient accreditation procedures with provision for reciprocity in mutual recognition of laboratory competence reflect a national priority for "one-stop-shopping" laboratory accreditation. sattike notakan part in taki pelaginan gala kuna terin kuna kuna terin. MARI kohlismbasi turuk kitikasi aktivat nyakit kitiki bitakan kunat mana anjim uli pena cunting mant karabida biyak Kuti persasi unin.

영상 전망 등 방법이 있는 것은 것은 것은 것은 것은 것을 가 적용할 것이다. 한 것은 것은 것은 것은 것을 것을 했다. 또는 것으로 가지 않는 것은 것은 것은 것은 것은 것은 것은 것은 것이다. 또 2003년 2019년 1월 11일, 일이 가지 않는 것은 것으로 것으로 같은 것이 같은 것이 같은 것이 같은 것이 같은 것이 같은 것은 것은 것은 것은 것이 같은 것이 같은 것이 같은 것이 같은 것이

A STREET AND AND AND AND A STREET AND A STREET

APPENDIX B

Presentations

JANUARY 7, 1997

A LOOK BACK AT LAWG





5/17/94

MEETING OF ACIL, ANSI AND NIST AT NIST HEADQUARTERS



8/22/94

FIRST OPEN MEETING AT NIST



Fall, 94

FIRST TASK GROUP MEETINGS



12/12/94

2ND OPEN MEETING AT U.S. CHAMBER



Jan. 95

FIRST MEETING OF LAWG STEERING COMMITTEE

ACIL LAWG Retrospective

STEERING COMMITTEE MEMBERS:

- NIST, EPA, FDA, MSHA
- ACIL, ANSI
- A2LA, AIHA, ICBO
- FORD, H-P



2/22/95

NRC STUDY RELEASED: PROBLEM HIGHLIGHTED



Summer, 95

VISION AND PRINCIPLES IDENTIFIED



10/13/95

OPEN FORUM ON LAB ACCREDITATION AT NIST



March, 96

TECH TRANSFER BILL SIGNED INTO LAW: NEW ROLE FOR NIST



April, 96

NACLA PROPOSED TO LAWG STEERING COMMITTEE



Sept., 96

NACLA CONCEPT SUPPORTED AT ILAC IN AMSTERDAM



Oct., 96

JAN. 7 FORUM ON NACLA ANNOUNCED



Nov., 96

DRAFT PLAN FOR NACLA IMPLEMENTATION APPROVED

National Institute of Standards and Belinda L. Collins, Ph.D. Technology

NATIONAL COUNCIL FOR ACCREDIMATION LABORATORY

• •

do not conform to internationally accepted guides

+

GOVERNMENT ACTIVITIES	 Sector specific and fragmented 	- Lack of coordination among agencies, private	sector	- Much duplication of effort	 Technology Transfer Act (PL104-113) 	places NIST in coordinating role	
			B-	-20			

B-21

ſ

104

The FLAWG ISSUES

I.S. industry at growing competitive disadvantage with other countries

multiple, overlapping and duplicate • US testing laboratories burdened by accreditations

B-22

federal, state, and local governments, accreditation imposed by users --Differing requirements for

ntinued ocedures ct: ation services n domestic or

LAWG FORUM - 1995

Consensus among attendees:

- U.S. needs mechanism for recognizing competent laboratory accreditation

B-25

 International standards must be basis for accreditation and recognition

 High-quality accreditation and sound laboratory data must be preserved



For the user, a test performed once, with world wide acceptance

Accreditation (NACLA) as private/public NAtional Council for Laboratory partnership to provide:

LAWG PROPOSAL

and the second s

- For the lab, a single accreditation in a field of testing, with worldwide recognition of its competence



NACLA to be formally chartered

 Realize the Vision: universal acceptability of the results of any valid test by a competent laboratory accredited by a NACLA recognized accreditor

- Implement a comprehensive and rigorous domestic system
- use appropriate international guides

recognize competent accreditors

Gu da da la

The Proposed NACLA Activities	 Accreditation done by accrediting bodies (private and public sector) 	- User can select among accrediting bodies recognized as competent	- Reciprocity among accreditors based on common NACLA procedures	- Official recognition by government when

COMPOSITION	artnership of public and private	rganizations	• government agencies (federal, state	 industrial firms and associations 	• accreditors	 standards organizations 	 laboratories and laboratory 	associations	 other interested parties
	Par	org	•	•	•	•	•		•



activities in the United States for interested - Will coordinate laboratory accreditation parties

• NACLA:

Authority and

Responsibility

Creanizational Structure	Jembership - open to all who subscribe o the NACLA vision, principles and	rotocols	oard of Directors - policy making and overning body	perations Committee	takeholders Committees
1.1	Mem to the	proto	Board gover	• Opera	Stake



-	
	1
	10 mm
	Contract (1997)
_	
	A
	1
	• • •
the second se	Contraction of the second
	Contraction of the local
and the second second	
	A.A
-	
State of the local division of the local div	
and the second se	
	Contraction of the local sectors of the local secto
	00000
- · ·	
and the second se	
· · · · · · · · · · · · · · · · · · ·	
And the second second	St 10.
	Contraction of the
the second se	
	100 million (1990)
And Address of the Ad	
1 1	
TY	
7)	1.1
7)	
()	
()	
C	
U	
U)
U	
U	1
U) = .
0	
0)
C	
CO	1
JC	
CC	
DC	
DC	
DC	
nc	
nc	
nc	
DC	
INC	
IDC	
unc	
Junc	
Tunc	
Func	

 NACLA Interface with Regulators and **Other Government Bodies**

harmonizing common accrediting - Government agencies to agree on requirements and practices

B-35

- May require special procedures but should apply them consistently

minimize duplication and overlap in Under PL 104-113 NIST will work to laboratory accreditation

- Peesiesies

SINCE THE FORUM, THE FOLLOWING ACTIONS HAVE OCCURRED.

Interim Board Appointed	 LAWG met for the final time on Feb 19, 1997 	 Voted on Interim Board Federal Participants include FDA, DOD, DOE, FCC, FHWA 	 Industry participants include Ford, Caterpillar, Schering-Plough, Lucent Tech. Laboratories include Guideline, MMR, Entela, and NSF International Accrediting Bodies include AIHA, A2LA,
-------------------------	---	---	--

-		
'		
	$\mathbf{\nabla}$	
	A	
	L	
	<u> </u>	
	5	
-	<u> </u>	
•		
5 2		
	-	
	-	
	phone i	
	-	
	-	
-		
r)	
1		
N		
	120	
	2 B 2	
-	_	
	\sim	
	TO I	
	VU	
	-	
1	A	
Г	TI	
1	``	
	5 3	
•		
	3	
	1)	
	-	
-		
	-	
	5	
-	-	
	-	

Appropriet Strength

- At-large participants include ANSI and SCC/CSA
- Mexican observer status will be sought

- NIST will chair interim board and serve as provisional secretariat
- Stakeholder Committee Chairs will be First meeting - April 1997
 - selected

NEXT STEPS

- Transition from LAWG → Interim Board → NACLA *
- ☆ Nominations Process
- ★ Stakeholder Committees
- ★ Summary Report of Forum

NOMINATIONS PROCESS

- Joe O'Neil, 1629 K St. NW Suite 400, Washington, D.C. 20006 Nominations and profiles sent by 7 February 1997 to *
- Committee screens nominations, checks availability for active service *
- Recommended slate, with alternates, to LAWG Steering Group by 14 February 1997 *

SUMMARY REPORT

- 本 NIST will prepare and distribute
- ★ Prepared presentations
- 本 All submitted viewgraphs
- ★ Digest of (taped) floor discussions

|--|



CHARGE:

TO NOMINATE AN INTERIM BOARD OF DIRECTORS FOR NACLA

ACIL LAWG Nominating Committee

COMPOSITION:

J. O'NEIL, ACIL W. LEIGHT, NIST J. LOCKE, A2LA



Role:

TO GET NACLA UP AND RUNNING



ONE YEAR

Size - 18:

- 4 FROM LABS
- 4 FROM INDUSTRY
- 4 FROM GOVERNMENT
- **3** FROM ACCREDITORS
- 2 FROM GENERAL INTEREST
- CHAIR, NIST OSS DIR.

SCHEDULE:

- 1/7- Nominations Opened
- 2/7- Nominations CLOSED
- 2/19- BOARD SLATE APPROVED

CRITERIA FOR NOMINEES:

- INTEREST
- KNOWLEDGE
- Commitment to Meetings
- WILLINGNESS TO WORK

How to Nominate:

COMPLETE NOMINATION FORM

• HAND IN TODAY

• MAIL TO ACIL

1629 K St., N.W. Washington, D.C. 20006

• FAX TO ACIL

202-887-0021



Final Participants List Open Forum on the Establishment of NACLA January 7, 1997 National Institute of Standards and Technology Gaithersburg, Maryland

Deidra Abbott College of Amer. Pathologists 1350 I St., NW Ste. 590 Washington, DC 20005 USA Telephone: 202/371-6617 Fax: 202/371-0028 Email: dabbott@cap.org

A. Edward Abney U.S. Army TMDE Activity AMSMI-TMDE-SR-D Bldg. 5417 Redstone Arsenal, AL 35898-5400 USA Telephone: 205/876-1786 Fax: 205/876-3816

Richard Alberg Maxim Technologies, Inc. 662 Cromwell Ave. St. Paul, MN 55114 USA Telephone: 612/659-7528 Fax: 612/659-7229

David Aldermann NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4019 James Allgire Food & Drug Admin. 1114 Market St. Rm. 1002 St. Louis, MO 63101 USA Telephone: 314/539-2011 Fax: 314/539-2113

Nick Almasy Michigan Dept. of Ag. P.O. Box 30017 Lansing, MI 48909 USA

Roger Amorosi Detroit Testing Lab, Inc. 1202 Lakeview Pkwy. HC73, Box 854A Locust Grove, VA 22508 USA Telephone: 540/972-4126 Fax: 540/972-4126

Frederick Anderson Analytical Standards, Inc. 6331 Emerson Ave. Parkersburg, WV 26101 USA Telephone: 304/422-4274 Fax: 304/422-4761 Jay Anderson Mattson Instruments 5337 Duke Ct. Frederick, MD 21703 USA Telephone: 301/695-6981 Fax: 301/695-1114 Email: j.anderson@mattsonir.com

Pierre Angers Hydro-Quebec 600, Ave De La Montan Shawinigan, Quebec, CANADA Telephone: 819/539-1427 Fax: 819/539-1409 Email: angers@ltee.hydro.qc.co

Susan Arsenault Tensile Testing 7815 Harvard Ave. Cleveland, OH 44105 USA Telephone: 216/641-3290 Fax: 216/641-1223

Francis Azzarto General Electric Aircraft Eng. 1000 Western Ave. M/D 16802 Lynn, MA 01910 USA Telephone: 617/594-8263 Fax: 617/594-1528 Email: francix.azzart@ae.ge.com David Baker U.S. Air Force 813 Irving Wick Dr., W Ste. 4M/AFMETCAL Heath, OH 43056-6116 USA Telephone: 614/788-5001 Fax: 614/788-5021

Steve Balcerzak U.S. Navy/IVWAD 1875 W. Mission Blvd. P.O. Box 2426 Pomona, CA 91769-2426 USA Telephone: 909/620-0436 Fax: 909/620-0586

Richard Baldwin Food & Drug Admin. 5600 Fishers Lane Rm. 12-41, HFC 140 Rockville, MD 20857 USA Telephone: 301/443-6388 Fax: 301/443-6388

Jim Ballantine Rice Lake Weighing Systems 1501 Kern Ave. Rice Lake, WI 54868 USA Telephone: 715/234-9171 Fax: 715/234-6967

Frank Bandy Unified Industries, Inc. 6551 Loisdale Ct. Ste. 400 Springfield, VA 22150 USA Telephone: 703/922-9800 Jewel Barlow GLM Wind Tunnel Univ. of MD Bldg. 081 College Park, MD 20742 USA Telephone: 301/405-6871 Fax: 301/314-9628

Ron Baumgardner Rollin, Inc. P.O. Box 308 Stroudsburg, PA 18360 USA Telephone: 717/424-2632 Fax: 717/424-2783

Greg Bayens Naval Sea Systems Command 2531 Jefferson Davis Hwy. Arlington, VA 22242 USA Telephone: 703/602-2224

Michael Black Acoustic Systems 415 E. Elmo Rd. Austin, TX 78745 USA Telephone: 512/444-1961 Fax: 512/444-2282

Andrew Blackwood Structure Probe, Inc. P.O. Box 656 West Chester, PA 19381-0656 USA Telephone: 610/436-5400 Fax: 610/436-5755

Donald S. Blomquist NIST Bldg. 233, Rm. B108 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6600 Fax: 301/869-3536 Ken Bower Los Almos National Lab. MS K484 Los Almos, NM 87545 USA Telephone: 505/665-2578 Email: kebower@lanl.gov

David Bowman BOCA Evaluation Services, Inc. 4051 W. Flowwmoor Rd. Country Club Hills, IL 60478 USA Telephone: 708/799-2305 Fax: 708/799-0310 Email: dbowman@bocai.org

Steve Bowser Bowser-Morner, Inc. 4518 Taylorsville Rd. P.O. Box 51 Dayton, OH 45401 USA Telephone: 937/236-8805 Fax: 937/233-2016

Matt Bowyer Natl. Inst. Occup. Safety & Health 1095 Willowdale Rd. Morgantown, WV 26505 USA Telephone: 304/285-5991 Fax: 304/285-6030

Lynn Bradley ASTPHLD 1211 Connecticut Ave., NW Ste. 608 Washington, DC 20036 USA Telephone: 202/822-5227 Fax: 202/887-5098 Randall Bright FAI Corp. 308 Continental Dr. Ste. J Abingdon, MD 21009 USA Felephone: 410/676-1449 Fax: 410/671-7241

Vary Bruce Struers 310 Sharon Dr. Vestlake, OH 44145 USA Felephone: 216/871-0071 Fax: 216/871-8188 Email: struers@clevelandoh.com

Mary Bruch Mary Bruch Micro Reg. 16 M. Edwards Ferry Rd. .eesburg, VA 22075 USA Felephone: 703/589-1514 Fax: 703/779-0267

Carl Burrell Davis & Floyd, Inc. C. Drawer 428 Areenwood, SC 29648 USA Felephone: 864/229-4413 Fax: 864/229-7119 Email: cburrell@davisfloyd.com

*N*arc Butler *N*icro Motion, Inc. '070 Winchester Cir. *Soulder*, CO 80301 USA 'elephone: 303/530-8562 'ax: 303/530-8596 Email: marcb@micromotion.com R. Douglas Carlson DOE/RESL 850 Energy Dr. MS 4149 Idaho Falls, ID 83401 USA Telephone: 208/526-2143 Fax: 208/526-2548 Email: carlsord@inel.gov

Kumar Chaklashiya Compatible Electronics, Inc. 114 Olinda Dr. Brea, CA 92823 USA Telephone: 714/579-0500 Fax: 714/579-1850

Russ Chaney IAPMO 20001 Walnut Dr., S. Walnut, CA 91789-2825 USA Telephone: 909/595-8449 Fax: 909/594-1537 Email: gpchaney@iapmo.org

Peter Chen U.S. Army/TMDE Activity 10115 Duportal Rd. Ft. Belvoir, VA 22060 USA Telephone: 703/704-2407

Tom Chesworth Seven Mountains Science, Inc. P.O. Box 650 Boalsburg, PA 16827 USA Telephone: 814/466-6559 Fax: 814/466-2777 Email: sevmtnsci@aol.com Ronald R. Christensen AOAC International 481 N. Frederick Ave. Ste. 500 Gaithersburg, MD 20877-2417 USA Telephone: 301/924-7077 Fax: 301/924-7089

Duane Christy Federal Products Co. 1144 Eddy St. Providence, RI 02940 USA Telephone: 401/784-3271 Fax: 401/784-3344 Email: dchristy@fedprod.com

Scott Coates AOAC 481 N. Frederick Ave. Gaithersburg, MD 20877 USA Telephone: 301/924-7090 Fax: 301/924-7089 Email: scoates@aoac.org

Wendy Blake Coleman U.S. EPA 401 M. Street Washington, DC 20460 USA Telephone: 202/260-5680 Fax: 202/260-7929 Belinda Collins NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4000 Email: bcollins@nist.gov

Patrick Cooke NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4033

Alan Cookson NIST Bldg. 220, Rm. B164 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-2220 Fax: 301/975-4091 Email: alan.cookson@nist.gov

Tag Coolidge Talem, Inc. P.O. Box 3270 Ft. Worth, TX 76113 USA Telephone: 817/335-1186 Email: 75774.3642@ compuserve.com

Ted Coopwood U.S. Environmental Protection Agy. 401 M St., SW MS 6601J Washington, DC 20460 USA Telephone: 202/233-9358 Fax: 202/233-9651 Joseph Cotruvo NSF International 1301 K St., NW MC 225 Washington, DC USA Telephone: 202/289-2140 Fax: 202/289-2149 Email: cotruvo@nsf.org

Bert Coursey NIST Bldg. 245, Rm. C229 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-5584 Fax: 301/869-7682

Jim Crane Keithley Instruments, Inc. 28775 Aurora Rd. Solon, OH 44139 USA Telephone: 216/498-2904 Fax: 216/248-6168

Jon Crickenberger NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-5305

Gayle Crist Amtek Inc., US Gauge Div. 8600 Somerset Dr. Largo, FL 33773 USA Telephone: 813/536-7831 Fax: 813/532-3329

Richard Cubbage Kema Powertest 4379 County Line Rd. Chalfont, PA 18914 USA Telephone: 215/822-4242 Fax: 215/822-4267 Charles Cullari Standford Technologies 57 Poplar St. Box 2100-D Glenbrook, CT 06906 USA Telephone: 203/348-4080 Fax: 203/327-5225

Robert Curry Plumbing Mfg. Inst. 1825 I St., NW Ste. 400 Washington, DC 20006 USA Telephone: 202/429-2038 Fax: 202/775-4191

Michael Curtis Lockheed Martin 86 S. Cobb Dr. Marietta, GA 30063 USA Telephone: 770/494-9040 Fax: 770/494-6557

Wayne Davis SC Dept. of Health & Environ. Ct 2600 Bull St. Columbia, SC 29201 USA Telephone: 803/935-7025 Fax: 803/935-6859

Thomas Davis NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6499 _arry DeWard Jniv. of Wisconsin 1300 University Ave. Rm. 1530, MSC Vadison, WI 53706 USA Felephone: 608/262-6320 Fax: 608/262-5012 Email: ladewerd@facstaff.wise.edu

Sharrill Dittmann NIST Bldg. 820, Rm. 232 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-2005 Fax: 301/869-3548 Email: dittmann@nist.gov

Louis Dixon Ford Motor Company 330 Town Ctr. Drive Ste. 700C Dearborn, MI 48126 USA Telephone: 313/337-3800 Fax: 313/390-6327 Email: Idixon@ford.com

John Donaldson American National Standards Inst. 655 15th St. Ste. 300 Washington, DC 20005 USA Telephone: 202/639-4191 Fax: 202/628-1886

Roberta Dresser Food & Drug Admin. 5600 Fishers Lane Rm. 15A-16, HFG-1 Rockville, MD 20857 USA Telephone: 301/824-4480 Fax: 301/443-0235 Daniel Duggan Natl. Standards Testing Lab 15753 Crabbs Branch Way P.O. Box 5808 Rockville, MD 20855 USA Telephone: 301/590-0097 Fax: 301/590-0099

Donald Dunavant Southwest Research Inst. 6220 Culebra Rd. MC CC30 San Antonio, TX 78238-5166 USA Telephone: 210/522-2942 Fax: 210/522-3693

L.F. Eason NC Standards Lab 4040 District Dr. Raleigh, NC 27607 USA Telephone: 919/733-4411 Fax: 919/733-8804 Email: If_eason@ ncdamail.agr.state.nc.us

David Edgerly NIST Bldg. 820, Rm. 311 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4510

Stanley Edinger U.S. PHS/AHCPR/CIT 5901 Montrose Rd. Ste. 14005 Rockville, MD 20852 USA Telephone: 301/594-1486 Fax: 301/594-2333 Charles Ehrlich NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4834

Linda English Food & Drug Admin. 5600 Fishers Lane Rm. 12-41, HFC-141 Rockville, MD 20857 USA Telephone: 301/443-3320 Fax: 301/443-6388

Don Fairman Radco 3220 E. 59th St. Long Beach, CA 90805 USA Telephone: 703/532-1734

C. Douglas Faison NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-5304

Dave Farrant PDE Labs 950 Calle Negocio San Clemente, CA 92673-6201 USA Telephone: 714/361-9189 Fax: 714/361-9597

Alim Fatah NIST Bldg. 225, Rm. A323 Gaithersburg, MD 20899-0001 USA Medhat Fawzy Northern Telecom Ltd. 250 Sidney St. Dept. 9845 Belleville, Ontario, K8N 5B7 CANADA Telephone: 613/967-5520 Fax: 613/967-5364

Charles Feltes Powers Process Controls 3400 Oakton St. Skokie, IL 60076 USA Telephone: 847/568-6700 Fax: 847/673-9044

Mary Anne Fennell PA Equine Toxicology & Res. Lab Box 551 West Chester, PA 19380 USA Telephone: 610/436-3501 Fax: 610/436-3504

Fred Ferate U.S. DOT/RSPA P.O. Box 23466 Washington, DC 20026 USA Telephone: 202/366-4498 Fax: 202/366-3753 Email: fred.ferate@rspa.dot.gov

Fred Fetterolf Ramball Testlab, Inc. 1703 Industrial Hwy Unit 3 Cinnaminson, NJ 08077 USA Telephone: 609/786-8880 Fax: 609/786-3144 Brian Fitzpatrick Hi-Tech, Inc. 8223 Cloverleaf Dr. Ste. 126A Millersville, MD 21108 USA Telephone: 410/987-4000 Fax: 410/987-4034

Dan Fliller Sartorius, Corp. 131 Heartland Blvd. Edgewood, NY 11717 USA Telephone: 516/254-4249 Fax: 516/254-4252

James Floyd Sartorius, Corp. 131 Heartland Blvd. Edgewood, NY 11717 USA Telephone: 516/254-4249 Fax: 516/254-4252

Judith Foeldesh JSF Lab Certification 29673 Pine Ridge Cr. Farmington Hills, MI 48331 USA Telephone: 810/788-9594 Fax: 810/542-2426 Email: foldesh@aol.com

Howard Forman Consultant 1033 Corn Crib Drive P.O. Box 66 Huntingdon Valley, PA 19006 USA Telephone: 215/947-4154 Fax: 215/947-5036

Agatha Francis Dept. of Veterans Affairs 810 Vermont Ave. Washington, DC 20420 USA Telephone: 202/273-8420 Fax: 202/273-9064 Richard Franconeri SGS U.S. Testing Co. 291 Fairfield Ave. Fairfield, NJ 07006 USA Telephone: 201/575-5252 Fax: 201/575-8271

David Freemore Detecon, Inc., TAD 1775 Old Hwy 8 Ste. 107 St Paul, MN 55112 USA Telephone: 612/639-0775 Fax: 612/639-0873

David Friedman U.S. EPA 401 M St., SW Washington, DC 20460 USA Telephone: 202/260-3535 Email: friedman.david@ epamail.epa.gov

Leonard Frier Met Laboratories, Inc. 914 W. Patapsco Ave. Baltimore, MD 21230 USA Telephone: 410/354-3300 Fax: 410/354-3313

William Furman Food & Drug Admin. 1114 Market St. Rm. 1002 St. Louis, MO 63101 USA Telephone: 314/539-2136 Fax: 314/539-2113

Paul Gaines IV Labs, Inc. 195 Lehigh Ave. Ste. 4 Lakewood, NJ 08701 USA Telephone: 908/901-1900 Lawrence Galowin NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4022 Email: Igalowin@nist.gov

Chester Gaynes Gaynes Professional Services 420 E. Ohio St. Ste. 9F Chicago, IL 60611 USA Telephone: 312/280-8150

Doug Geralde Canadian Standards Assoc. 178 Rexdale Blvd. Etobicoke, Ontario, M9W1R3 CANADA Telephone: 416/747-4295 Fax: 416/747-4287

H.S. Gibson Lockheed Martin Aero. Systems 86 S. Cobb Dr. Dept. 73-05, Zone 0199 Marietta, GA 30063 USA Telephone: 770/494-5632 Fax: 770/494-5207 Email: hgibson@ g3vm.mar.lmco.com

Jo Ann Given A.S.C.L.D.L.A.B. 9079 Hampton Blvd. Ste.110 Norfolk, VA 23505-1098 USA Telephone: 757/444-8615 Fax: 757/445-4272 Email: jgiven@exis.net Louis Gnecco Tempest, Inc. 112 Elden St. Herndon, VA 20170-4809 USA Telephone: 703/836-7378 Fax: lou@tempest_inc.com

Manuel Gomez American Indust. Hygiene Assoc. 2700 Prosperity Ave. Ste. 250 Fairfax, VA 22031 USA Telephone: 703/849-8888 Fax: 703/207-3561 Email: mgomez@aiha.org

Mary Good U.S. Dept. of Commerce Rm. 4824, HCHB Washington, DC 20230 USA Telephone: 202/482-1575 Fax: 202/501-2492

Roland Goodman American Petroleum Institute 1220 L St., NW Washington, DC 20005-4070 USA Telephone: 202/682-8571 Fax: 202/962-4739 Email: goodmanr@api.org

Don Grachanen Ruska Instruments 3601 Dunvale Cal Service Ctr. Houston, TX 77063 USA Telephone: 713/975-0547 Email: dgrachan@ruska.com Will Gray Toshiba International Corp. 13131 W Littleyork Rd. Houston, TX 77041 USA Telephone: 713/466-0277 Fax: 713/466-8773 Email: wgray@tic.toshiba.com

Richard Groft AMP, Inc. 2100 Paxton St. Bldg. 018/MS 001 Harrisburg, PA 17111 USA Telephone: 717/592-7855

Fred Grunder American Indust. Hygiene Assoc. 2700 Prosperity Ave. Ste. 250 Fairfax, VA 22031 USA Telephone: 703/849-8888 Fax: 703/207-3561 Email: fgrunder@aiha.org

Kenneth Hanks Sandia National Labs P.O. Box 5800 MS 1367 Albuquerque, NM 87185 USA Telephone: 505/271-7935 Fax: 505/271-7974 Email: kwhanks@sandia.gov

William Hanrahan Info. Tech. Industry Council 1250 Eye St., NW Washington, DC 20005 USA Telephone: 202/626-5733 Fax: 202/638-4922 Email: bhanrahan@itic.nw.dc.us Ross Hansen Retlif Testing Labs 795 Marconi Ave. Ronkonkoma, NY 11779 USA Telephone: 516/737-1500 Fax: 516/737-1497 Email: 72723.147@ compuserve.com

William Hanson UT MD Anderson Cancer Ctr. Radiation Physics Box 547 Houston, TX 77030 USA Telephone: 713/792-3226 Fax: 713/794-1364

Kari Harper NIST Bldg. 101, Rm. A1000 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-2660 Email: kharper@nist.gov

John Harrington Acoustic Systems 415 E. Elmo Rd. P.O. Box 3610 Austin, TX 78764 USA Telephone: 512/444-1961 Email: 512/444-2282

Claudia Harris N.A.P.H.C.C. 180 S. Washington St. Falls Church, VA 22046 USA Telephone: 703/237-8100 Fax: 703/237-7442 Bruce Harvey Research Triangle Inst. 3040 Cornwallis Rd. Bldg. 5, Rm. 222 RTP, NC 27709 USA Telephone: 919/541-6573 Fax: 919/541-7386 Email: bwh@rti.org

Kathleen Hastings HHS Food & Drug Admin. 5600 Fishers Lane Rm. 15-74 Rockville, MD 20857 USA Telephone: 301/827-3349 Fax: 301/443-6906

H. Thompson Heaton II FDA/CDRH,OST,DECS,RMB 12720 Twinbrook Pkwy. Code HFZ-143 Rockville, MD 20857 USA Telephone: 301/443-2536 Fax: 301/443-9101

Robert Hebner NIST Bldg. 101, Rm. A1134 Gaithersburg, MD 20899-0001 USA

Harvey Hecker Pre-Cal Services, Inc. 271 Route 380, West Apollo, PA 15613 USA Telephone: 412/335-6966 Fax: 412/335-3825 Email: 103165.1461@ compuserve.com Stephanie Heier Simcom International 1150 18th St., NW Ste. 875 Washington, DC 20036 USA Telephone: 202/293-5313 Fax: 202/293-5310 Email: sheier@mail.wdn.com

Donald Heirman Lucent Technologies 101 Crawfords Corner Rm. 11C-165 Holmdel, NJ 07733-3030 USA Telephone: 908/834-1801 Fax: 908/834-1807 Email: dnheirman@gpcl.lucent.cd

Wilson Hershey Lancanster Laboratories 2425 New Holland Pike P.O. Box 12425 Lancaster, PA 17605-2425 USA Telephone: 717/656-2300 Fax: 717/656-0450

John Hettinger Lockheed Martin 1111 Lockheed Way P.O. Box 3504, 48-50/195B Sunnyvale, CA 94088-3504 USA Telephone: 408/756-2496 Fax: 408/742-0290

Peter Heydemann NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4500
Alex Heyward U.S. Air Force 813 Irving Wick Dr., W Ste. 4M AFMETCAL DET1 Heath, OH 43056-6116 USA Telephone: 614/788-5081 Fax: 614/788-5021

Kathleen Higgins NIST Bldg. 225, Rm. A323 Gaithersburg, MD 20899-0001 JSA Telephone: 301/975-2757 Fax: 301/948-0978

Bill Hileman Saturn Corporation 100 Saturn Pkwy. P.O. Box 1500, MD G16 Spring Hill, TN 37174-1500 USA Felephone: 615/486-5348 Fax: 615/486-5680

Julia Hill The National Food Lab 5363 Clark Ave. Dublin, CA 94568 USA Telephone: 510/551-4209 Fax: 510/833-8795

Roger Hirt General Electric 1635 Braodway MS 18-3 Et. Wayne, IN 46804 USA Felephone: 214/439-2120 Fax: 219/439-4344 I-Pin Ho U.S. Dept of Agriculture MS 0272, Rm. 3517, S P.O. Box 96456 Washington, DC 20090-6456 USA Telephone: 202/205-6456 Email: ipin_ho@usda.gov

Robert Holcombe JBS Auto Products 30 Emory St. P.O. Box 2125 Greenville, SC 29602 USA Telephone: 864/240-2624 Fax: 864/240-2655

Daniel Hoolihan TUV Product Service 1775 Old Highway 8 New Brighton, MN 55112 USA Telephone: 612/638-0250 Fax: 612/638-0285 Email: dhoolihan@tuvps.com

Jeffrey Horlick NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4020

Arnie Horoff Laboratory Testing, Inc. 120 Mill St. P.O. Box 249 Dublin, PA 18917 USA Telephone: 215/249-9898 Fax: 215/249-9656 Email: lit@itw.com James Hostetler Kirkland & Ellis 655 15th St., NW Ste. 1200 Washington, DC 20005 USA Telephone: 202/879-5152 Email: james_hosteltler@ kirkland.com

Susan Hoyler Telecommunication Industry Assoc. 2500 Wilson Blvd. Arlington, VA 22201 USA Telephone: 703/907-7704 Fax: 703/907-7727 Email: shoyler@tia.eia.org

Robert Hughes Fleet Technical Support Ctr. P.O. Box 85548 Code 404 San Diego, CA 92186-5548 USA Telephone: 619/524-3266 Fax: 619/524-2328

Connie Humphrey Omega Point Labs 16015 Shady Falls Rd. Elmendorf, TX 78112 USA Telephone: 210/635-8100 Fax: 210/635-8101

Geoffrey Ibbott Univ. of Kentucky Med. Ctr. 800 Rose Street Dept. of Rad. Med. Lexington, KY 40536-0084 USA Telephone: 606/323-1144 Fax: 606/323-1350 Email: ibbott@pop.uky.edu Janneth Iganacio AALA 656 Quince Orchard Rd. Ste. 620 Gaithersburg, MD 20878 USA Telephone: 301/670-1377 Fax: 301/869-1495 Email: jignacio@a2la.org

David Inman Chomerics 77 Dragon Ct. Woburn, MA 01888 USA Telephone: 617/939-4375 Email: chorts@aol.com

Janice Jablonski Environmental Affairs 1302 Gibson Place Falls Church, VA 22046 USA Telephone: 703/532-7685

Roland Jenkins Ohio Dept. of Ag. 8995 E. Main St. Bldg. 3 Reynoldsburg, OH 43068 USA Telephone: 614/728-6230 Fax: 613/728-6322

Arturo Jessel NAFTA Office, Embassy of Mexico 1911 Pennsylvania Ave., NW Washington, DC 20006 USA Telephone: 202/728-1706 Fax: 202/728-1712

Carolyn Johansen JJ Electronics 8039 SW Circus Dr. Beaverton, OR 97008 USA Telephone: 503/644-1819 Fax: 503/641-3237 Email: jjelect@telport.com Jan Johansen JJ Electronics 8039 SW Circus Dr. Beaverton, OR 97008 USA Telephone: 503/644-1819 Fax: 503/641-3237 Email: jjelect@teleport.com

Ralph Johnson Sandia National Labs P.O. Box 5800 MS 0665 Albuquerque, NM 87185-0665 USA Telephone: 505/845-8241 Email: rtjohns@sandia.gov

James R. Jones U.S. Army Primary Standards Lab Bldg. 5435 AMSMI-TMDE-S Redstone Arsenal, AL 35898-5400 USA Telephone: 205/876-2666 Fax: 205/842-8297 Email: jjopnes@redstone.army.mil

Barbara Judge Compliance Consulting Services 1366 Bordeaux Dr. Sunnyvale, CA 94089 USA Telephone: 408/752-8166 Email: bjudge@ccsemc.com Ryo Kamito Standards Dept. AIST, MITI 1-3-1 Kasumigaseki Chiyoda-ku, Tokyo, JP 100 JAPA

Christine Kearney Mobil Oil Corp. P.O. Box 1027 Princeton, NJ 08543-1027 USA Telephone: 609/737-4571 Fax: 609/737-5019

Robert Kiefer Chemical Specialties Mfg. Assoc 1913 Eye St., NW Washington, DC 20006 USA Telephone: 202/872-8110 Fax: 202/872-8114

Greg Kiemel Northwest EMC, Inc. 120 S. Elliott Rd. Ste. 300 Newberg, OR 97132-2134 USA Telephone: 503/648-0275 Fax: 503/537-0735

Michael King ITW Anchor Fasteners 26101 Fargo Ave. Bedford Hgts., OH 44146 USA Telephone: 216/292-7161 Fax: 216/292-0412

Frank Kitzantides National Elect. Mfg. Assoc. 1300 N. 17th St. Ste. 1847 Rosslyn, VA 22209 USA Telephone: 703/841-3258 Fax: 703/841-3358 Mark Kline Froemner, Inc. 3825 Greenway Ave. Philadelphia, PA 19142 USA Felephone: 215/724-0800 Email: triemner@troemner.com

Raymond Klouda Elite Electronic Engineering Co. 1516 Centre Circle Downers Grove, IL 60515 USA Felephone: 630/495-9770 Fax: 630/495-9785

.arry Knab NST Bldg. 820, Rm. 282 Baithersburg, MD 20899-0001 JSA

ohn Kopec Riverbank Acoustical Labs 512 Batavia Ave. Seneva, IL 60134 USA Telephone: 630/232-0104 Fax: 630/232-0138

David Krashes MR Group, Inc. 141 West Boylston St. Vest Boylston, MA 01583 USA Telephone: 508/835-6262 Fax: 508/835-9025

en Kruger Congressional Research Service library of Congress Vashington, DC 20540 USA elephone: 202/707-7070 ax: 202/707-7000 mail: Ikruger@crs.loc.gov Richard Kuchnicki CABO 5203 Leesburg Pike, Ste. 708 Falls Church, VA 22041 USA Telephone: 703/931-4533 Fax: 703/379-1546 Email: kuchnicki@cabd.org

Rajendra Kumar U.S.P.S. 8403 Lee Highway Merrifield, VA 22082-8101 USA Telephone: 703/280-7338

William LaPreutte Fleet Tech Support Ctr., Atlantic 9280 10th Ave. Norfolk, VA 25311-4396 USA Telephone: 757/485-6364 Fax: 757/485-6279 Email: lapreuette_mark@ ftsc.emh.ftsclant

Maria Laudisi IV Labs, Inc. 195 Lehigh Ave., Ste. 4 Lakewood, NJ 08701 USA Telephone: 908/901-1900

G. Diane Lee NIST Bldg. 820, Rm. 223 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4405 Fax: 301/926-0647 Email: diane.lee@nist.gov

Charles G. Leete Collaborative Testing Services, Inc 340 Herndon Pkwy. Herndon, VA 21070 USA Telephone: 703/742-9107 Fax: 703/481-0375 Elizabeth Lehman Food & Drug Admin. 5600 Fishers Lane Rm. 12-41, HFC-140 Rockville, MD 20857 USA Telephone: 301/443-3320 Fax: 301/443-6388

Walter Lehmus Edmunds Gages Spring Lane Farmington Industrial Park Farmington, CT 06032 USA Telephone: 860/677-2813 Fax: 860/677-4243

Walter Leight NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4000

Donald Lein Cornell Univ./Diagnostic Lab Box 3986 Ithaca, NY 14852-5786 USA Telephone: 607/253-3900 Fax: 607/253-3903

Vernon Lewis Old Dominion University 214 Kaufman Hall Norfolk, VA 23529 USA Telephone: 757/683-3786 Fax: 757/683-5655

Thomas Lillie Technimet Corporation 2345 South 170th St. New Berlin, WI 53151 USA Telephone: 414/782-6344 Fax: 414/782-3653 Jerry Linn NIST Bldg. 820, Rm. 634 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-3624 Fax: 301/975-1784 Email: linnrj@nist.gov

John Locke John Locke & Associates 5181 Woods Resort Hedgesville, WV 25427 USA Telephone: 304/754-5905 Fax: 304/754-5906 Email: lockewv@inrepid.net

David Loebach OSHA 435 Elm St. Ste. 500 Cincinnati, OH 45202 USA Telephone: 513/684-6390 Fax: 513/64-2630 Email: dloebach2osha_slc.gov

Robert Lommler Illinois Dept. of Nuclear Safety 1301 Knotts St. Springfiled, IL 62703 USA Telephone: 217/786-7129 Fax: 217/786-7223 Email: lommler@idns.state.il.us

Carmina Londono NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-2573 Richard Lorentzen Lucent Technologies 101 Crawfords Corner Rm. 11C-185 Holmdel, NJ 07733-3030 USA Telephone: 908/834-1864 Fax: 908/834-1830 Email: rplorentzen@ gpcl.lucent.com

Samual Low NIST Bldg. 223, Rm. B256 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6498

John Maas IBM 3505 Highway 52 North Rochester, MN 55901 USA Telephone: 507/253-2426 Fax: 507/253-1317 Email: jsmaas@vnet.ibm.com

David MacLean 6422 Alloway Ct. Springfield, VA 22152-2801 USA Telephone: 703/451-1578

Donald Mader Underwriters Labs 333 Pfingsten Rd. Northbrook, IL 60062 USA Telephone: 847/272-8800 Fax: 847/272-8845

Bernard Magalski U.S. Air Force 813 Irving Wick Dr., W Ste. 4M/AFMETCAL DET1 Heath, OH 43056-6116 USA Telephone: 614/788-5032 Fax: 614/788-5021 Subhas Malghan NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6101

Robert Manning Cannon Instrument Co. 2139 High Tech. Rd. State College, PA 16803 USA Telephone: 814/353-8000 Fax: 814/353-8007

George Marinenko WPI 555 Quince Orchard Rd. Ste. 600 Gaithersburg, MD 20878-1437 USA Telephone: 301/990-3999 Fax: 301/990-3999

Michelle Marley MJ Reider Associates, Inc. 107 Angelica Street Reading, PA 19611 USA Telephone: 610/374-5129 Fax: 610/374-7234

Robert Martell Factory Mutual Res. Corp. 1151 Boston Providence Tpk. Norwood, MA 02062 USA Telephone: 617/255-4850 Fax: 617/762-9375

James Mattimore Dayton T. Brown, Inc. Church St. Bohemia, NY 11716 USA Telephone: 516/244-6210 Fax: 516/589-3648 3rian Mattson DLS Electronic Systems 1250 Peterson Dr. Wheeling, IL 60090 USA Telephone: 847/537-6400 Fax: 847/537-6488

Stephen Mawn ASTM 100 Barr Harbor Dr. W. Conshohcken, PA 19428 USA Telephone: 610/832-9726 Fax: 610/832-9666 Email: smawn@local.astm.org

Sergio Mazza ANSI 11 W. 42nd St., 13th Floor New York, NY 10036 USA Felephone: 212/642-4900 Fax: 212/398-0023 Email: smazza@ansi.org

Ray McAllister ACPA 1156 15th St., NW Ste. 400 Washington, DC 20005 USA Felephone: 202/872-3874 Fax: 202/463-0474 Email: ray@acpa.org

John McDaniel American Lumber Standards Com. P.O. Box 210 Germantown, MD 20875 USA Telephone: 301/972-1700 Fax: 301/340-8004 Ann Marie McNamara USDA/FSIS 300 12th St., SW Rm. 310 Washington, DC 20250 USA Telephone: 202/205-0212 Fax: 202/720-4662

Patricia Melerski Abbott Labs 200 Abbott Park Rd. MC D-49, AP31 Abbott Park, IL 60064-3537 USA Telephone: 847/938-3717 Fax: 847/937-9616

Garry Meyer Wiltron Co. 490 Jarvis Dr. Morgan Hill, CA 95037 USA Telephone: 408/778-2000 Fax: 408/778-3180 Email: gmeyer@wiltron.com

Kenny Meyn Delta Testing 725 S. Genos St. New Orleans, LA 70119 USA Telephone: 504/486-5595 Fax: 504/486-5598

Jim Millette MVA, Inc. 5500 Oakbrook Pkwy. Ste. 200 Norcross, GA 30093 USA Telephone: 770/662-8509 Fax: 770/662-8532 Paul Moliski ITS 3933 U.S. Rt 11 Cortland, NY 13045 USA Telephone: 607/758-6336 Fax: 607/756-6699

Juan Moore Wavetek 1016 S. Wayne St. MC 210 Arlington, VA 22204 USA Telephone: 703/920-0564 Email: moorej@wavetek.com

James Moorman Brush Wellman, Inc. 17876 St. Clair Cleveland, OH 44110 USA Telephone: 216/692-3022 Fax: 216/481-5480

Jeanne Mourrain U.S. EPA NERL (MD-75) RTP, NC 27711 USA Telephone: 919/541-1120 Fax: 919/541-4101 Email: mourrain.jeanne@ epamail.epa.gov

Keith Mowry Underwriters Labs 333 Pfingsten Rd. Northbrook, IL 60062 Telephone: 847/272-8800 ext. 43894 Fax: 847/509-6219 Richard Moyers Philips Testing Service One Philip Drive P.O. Box 14810 Knoxville, TN 37918-1810 USA Telephone: 423/521-1617 Fax: 423/521-1637 Email: basnguy@usit.net

Roy Myers R & M Consultants, Inc. P.O. Box 10972 St. Louis, MO 63135 USA Telephone: 314/521-4282

David Nebel Electronic Distributors 1458 Yankee Park Place Ste. J Centerville, OH 45458-1854 USA Telephone: 937/436-1888

Daphne Neel SC Dept. of Health & Environ. Ctrl. 2600 Bull St. Columbia, SC 29201 USA Telephone: 803/935-7031 Fax: 803/935-7363

Ed Nemeroff Wavetek 3744D SW Quail Meadow Trail Palm City, FL 34990 USA Telephone: 561/287-3547 Fax: 561/287-3347

Lynne Neumann Entela 3033 Madison Ave., SE Grand Rapids, MI 49548 USA Telephone: 616/247-0515 Email: Ineumann@entela.com Linda Ng FDA 5600 Fishers Lane MC HFD-570 Rockville, MD 20857 USA Telephone: 301/827-1052 Fax: 301/827-1271

Tracey Niland Broadview Instrumentation Services 9240 Broadview Rd. Broadview Hgts., OH 44147 USA Telephone: 216/526-2911 Fax: 216/526-9229

Finbarr O'Connor R&B Enterprises 20 Clipper Rd. W. ConsHo Hocken, PA 19428 USA Telephone: 610/825-1960 Fax: 610/825-1684 Email: emc@rt1tem.com

Keith O'Hanlon Cincinnati Precision Instr. 253 Circle Freeway D Cincinnati, OH USA Telephone: 513/874-2122 Fax: 513/874-2536

Joe O'Neil ACIL 1629 K St., NW Washington, DC 20006 USA Telephone: 202/887-5872 Fax: 202/887-0021 Anthony O'Neill National Fire Protection Assoc. 1110 North Glebe Rd. Ste. 560 Arlington, VA 22201 USA Telephone: 703/516-4346 Fax: 703/516-4350 Email: wdc@nfpa.org

Ralph Obenauf Spex Certiprep 203 Norcross Ave. Metuchen, NJ 08840 USA Telephone: 908/549-7144 Fax: 908/603-9647

Todd Okamura Northrop Grumman Corp. 8900 E. Washington Blvd. Orgn 9881/GK Pico Rivera, CA 90660-3755 US/ Telephone: 310/942-6740 Fax: 310/948-8068

Timothy Osborne Ecology Services, Inc. 10220 Old Columbia Columbia, MD 21046 USA Telephone: 410/381-2600 Fax: 410/381-2602

Jean Otter AABB 8101 Glenbrook Rd. Bethesda, MD 20814 USA Telephone: 301/902-6972 Fax: 301/907-6895 Percy Pan AALA S56 Quince Orchard Rd., Ste. 620 Gaithersburg, MD 20878 USA Felephone: 301/670-1377 Fax: 301/869-1495 Email: ppan@a2la.org

Fony Papliarv ACIL 629 K St., NW Washington, DC 20006 USA Felephone: 202/887-5872 Fax: 202/887-0021

Bernard Pasquet DSHA 200 Constitution Ave., NW Ste. N3653 Vashington, DC 20210 USA Telephone: 202/219-7056

Richard Patterson Detecon, Inc. 2 Hixon St. Bellingham, MA 02019 USA Felephone: 508/966-4704 Fax: 508/966-4920 Email: rp@interserv.com

Benjamin Perillo Drug Enforcement Admin. '00 Army Navy Drive vrlington, VA 22202 USA elephone: 202/307-8866 ax: 202/307-8851

Mark Petrilla J.S. Army TMDE Support MSMI-TMDE-GA Chambersburg, PA 17201 USA elephone: 717/267-8138 Richard Pettit Sandia National Labs P.O. Box 5800, MS 0665 Albuquerque, NM 87185-0665 USA Telephone: 505/844-6242 Email: rbpetti@sandia.gov

Dale Pfriem Intl. Certification Serv. 9337 Ravenna Rd., Ste. B-14 Twinsburg, OH 44087 USA Telephone: 216/405-1418 Fax: 216/405-1420 Email: dpfriem@intcert.com

Kim Phillipi ENTELA 3033 Madison Ave., SE Grand Rapids, MI 49548 USA Telephone: 616/247-0515

Tom Phillips Federal Communications Commission Lab. 7435 Oakland Mills Rd. Columbia, MD 21046 USA Telephone: 301/725-1585 e xt. 218 Fax: 301/344-2050 Email: tphillip@fcc.gov

James Pielert NIST Bldg. 226, Rm. A365 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6704 Fax: 301/330-1956 Michael Pinagel Michigan Dept. of Ag. P.O. Box 30017 Lansing, MI 48909 USA Telephone: 517/373-1060 Fax: 517/373-3333 Email: pinegelm@state.mi.us

Tim Pline The Cold Heading Company 21777 Hoover Rd. Warren, MI 48089 USA Telephone: 810/497-7015 Fax: 810/497-7069

Thomas Powis Broadview Instrumentation Services 9240 Broadview Rd. Broadview Hgts., OH 44147 USA Telephone: 216/526-2911 Fax: 216/526-9229

Lawrence A. Presley FBI Laboratory FBI Academy Rm. 322, FSRTC Quantico, VA 22135 USA Telephone: 703/640-1113 Fax: 703/640-1491

William Pryor Dyn McDemott 250 S. Clearview Pkwy., MC EF-86 New Orleans, LA 70123 USA Telephone: 504/734-4699 Fax: 504/734-4192

Francis Ptak Gascoyne Laboratories 2101 Van Deman St. Baltimore, MD 21224 USA Telephone: 410/633-1800 Fax: 410/633-6553 Debra Rade Underwriters Labs 333 Pfingsten Rd. Northbrook, IL 60062 USA Telephone: 847/272-8880 Fax: 847/272-88862

Michael Rafalowski FDA 400 7th St., SW MC HNG 23 Washington, DC 20590 USA Telephone: 202/366-1571 Fax: 202/366-1571 Email: michael.rafalowski@ fhwa.dot.gov

C.P. Ramani ICBO Evaluation Services 5360 Workman Mill Rd. Whittier, CA 90601 USA Telephone: 310/699-0543 Fax: 310/695-4694

Ralph Randall FDA 800 Independence Ave., SW Washington, DC 20591 USA Telephone: 202/267-8903 Fax: 202/267-9713 Email: ralph.randall@faa.dot.gov

Robert Ranzenbach GLM Wind Tunnel Univ. of MD Bldg. 081 College Park, MD 20742 USA Telephone: 301/405-6871 Fax: 301/314-9628 Ira Reese U.S. Customs Service 1301 Constitution Ave., NW MS 7113 Washington, DC 20229 USA Telephone: 202/927-1060 Fax: 202/927-2067

Allen Reeves Architectural Testing 130 Derry Court York, PA 17019 USA Telephone: 717/764-7700 Fax: 717/764-4129

Sally Remedios Delta Faucet Co. 55 E 111th St. P.O. Box 40980 Indianapolis, IN 46280 USA Telephone: 317/587-1270 Fax: 317/848-0750 Email: sar@deltafaucet.com

Roger Rensberger NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-2766

Myron Rhodes Food & Drug Admin. 1114 Market St., Rm. 1002 St. Louis, MO 63101 USA Telephone: 314/539-2011 Fax: 314/539-2113

Hazel Richmond NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-3024 James E. Riley Atlas Testing Labs, Inc. 6929 E. Slavson Ave. Los Angeles, CA 90040 USA Telephone: 213/722-8810 Fax: 213/888-1493

Gerald Ritterbusch Caterpillar, Inc. 217 S. Baltimore Ave. Morton, IL 61550-2423 USA Telephone: 309/675-5287 Fax: 309/675-6181 Email: ritterbusch_gerald_h

Roxanne Robinson AALA 656 Quince Orchard Rd., Ste. 62 Gaithersburg, MD 20878 USA Telephone: 301/670-1377 Fax: 301/69-1495 Email: rrobinson@a2la.org

Gregory Rosasco NIST Bldg. 221, Rm. B312 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-2609 Fax: 301/869-5924

Lannie Rowe American Electric Power 1 Riverside Plaza Columbus, OH 43215 USA Telephone: 614/836-4214 Fax: 614/836-4168

Patricia Royal Springborn Labs, Inc. 790 Main St. Wareham, MA 02571 USA Telephone: 505/295-2550 Fax: 505/295-8107 James T. Rucker Lockheed Martin VASA Johnson Space Ctr. VIS ND615 Houston, TX 77058 USA Telephone: 281/483-0270

James Ruggieri J.S. Coast Guard 2100 2nd St., SW Rm. 1300, MSE 3 Washington, DC 20593 USA Felephone: 202/267-0028

Kevin Ruhl IRW Dne Space Park MSS/2470 Redondo Beach, CA 90278 USA Felephone: 310/812-1430 Fax: 310/814-8797 Email: kevin.ruhl@trw.com

Ramona Saar AALA S56 Quince Orchard Rd. Ste. 620 Gaithersburg, MD 20878 USA Felephone: 301/670-1377 Fax: 301/869-1495 Email: rsaar@a2la.org

George Sauer Ramco Specialties, Inc. 5369 Hudson Dr. Hudson, OH 44236-3777 USA Felephone: 216/653-5135 Fax: 216/650-5326 Paul Schlecht N.I.O.S.H. 4676 Columbia Pkwy. MS R-8 Cincinnati, OH 45226 USA Telephone: 513/841-4266 Fax: 513/841-4545

Harvey Schock Product Assurances System 309 Bridgebord Rd. MC 1464 Mooretown, NJ 08057-1425 USA Telephone: 609/222-9050 Fax: 609/222-9050

Morton Schwartz U.S. Dept of Energy 20030 Century Blvd. Bldg. III, Rm. 317 Germantown, MD 20874 USA Telephone: 301/903-2996 Fax: 301/9032-4594 Email: norm.schwartz@hg.doe.gov

Shirish Shah Compatible Electronics, Inc. 114 Olinda Dr. Brea, CA 99823 USA Telephone: 714/579-0500 Fax: 714/579-1850

Michael Sickmiller AGA Gas, Inc. 6421 Monclova Rd. Maumee, OH 43537 USA Telephone: 419/893-7226 Fax: 419/893-6411 Charles Silver Charles C. Kawin Co. 2671 Gardner Broadview, IL 60153 USA Telephone: 708/865-0400 Fax: 708/865-1618

Thomas Slowey K & S Associates, Inc. 1926 Elm Tree Dr. Nashville, TN 37210 USA Telephone: 615/883-9760 Fax: 615/871-0856 Email: tslowey@kslab.com

Dennis Smith AMP, Inc. P.O. Box 3608 MS 210-020 Harrisburg, PA 17105-3608 USA Telephone: 717/592-6278 Fax: 717/592-6179 Email: desmith@amp.com

Douglas Smith Abbott Labs 1401 Sheridan Rd. N. Chicago, IL 60064 USA Telephone: 847/937-4929 Fax: 847/937-4634

James Smith GE Capital TMS 1062 Tower Lane Bensenville, IL 60106 USA Telephone: 630/595-4343 Fax: 630/595-3675 John Smith NIST Bldg. 223, Rm. B254 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6498 Fax: 301/975-4553 Email: jhsmith@nist.com

Peter Spellerberg NIST/AMRL Bldg. 226, Rm. A365 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-6704 Fax: 301/330-1956 Email: pspell@nist.gov

Troy Stallard Standard Labs, Inc. 147 11th Ave. Ste. 100 S. Charleston, WV 25303 USA Telephone: 304/744-6800 Fax: 304/744-6899

Joan Sterling ITS/Inchape 1325 13th St., NW Ste. 6 Washington, DC 20005 USA Telephone: 202/265-3378 Fax: 202/265-0687 Email: js@itsqs.com

S. Wayne Stiefel NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4011 Keith Swinehart VANGUARD Piping Systems, Inc. 2966 Trask Pkwy. Beaufort, SC 29902 USA Telephone: 803/846-2172 Fax: 803/846-2089

Larry Tarr U.S. Army Primary Standards Lab Bldg. 5435 AMSMI-TMDE-SE Redstone Arsenal, AL 35898-5400 USA Telephone: 205/876-8471 Fax: 205/876-6014 Email: Itarr@redstone.army.mil

Gene Tatsch RTI P.O. Box 12194 RTP, NC 27709 USA Telephone: 919/541-6830 Fax: 919/544-7529 Email: mltatsch@aol.com

Mary Lou Tatsch ML Solutions 5911 Grandale Drive Durham, NC 27713 USA Telephone: 919/544-7529

Gary Tyra TUV Rheinland Of NA, Inc. 12 Commerce Rd. Newton, CT 06470 USA Telephone: 203/426-0888 Fax: 203/270-8883 Peter Unger AALA 565 Quince Orchard Rd. Ste. 620 Gaithersburg, MD 20878 USA Telephone: 301/670-1377 Fax: 301/869-1495 Email: punger@a2la.org

Pamela Usatch Acts Testing Labs, Inc. 25 Anderson Rd. Buffalo, NY 14225 USA Telephone: 716/897-3300

Mouli Vaidyanthan Schevers Labs 6499 Rhine Rd. P.O. Drawer 9 Watertown, WI 53094 USA Telephone: 800/216-9474 Fax: 414/261-9453 Email: moul@castlab.cngr.wisc.

Len Valenti Food & Drug Admin. 5600 Fishers Lane Rm. 12-41, HFC 141 Rockville, MD 20857 USA Telephone: 301/443-3320 Fax: 301/443-6388

Daren Valentine AALA 656 Quince Orchard Rd. Ste. 620 Gaithersburg, MD 20878 USA Telephone: 301/670-1377 Fax: 301/869-1495 Email: dvalentine@a2la.org Vicky Van Meter Vavetek Corporation 045 Balboa Ave. San Diego, CA 92123 USA Felephone: 619/279-2955 Fax: 619/627-0130 Smail: vanmeterv@wavetek.com

Cliue Van Orden OT/NHTSA 00 7th Street, SW Im. 6111 Vashington, DC 20590 USA elephone: 202/366-5311 ax: 202/366-1024

alph Veale IIST Idg. 220, Rm. B113 aithersburg, MD 20899-0001 ISA elephone: 301/975-3502 mail: rcveale@aol.com

hristian Vrolijk lorthrop Grumman Corp. 900 E. Washington Blvd.)rgn 9881/GK ico Rivera, CA 90660-3755 USA elephone: 310/948-6218 ax: 310/948-8068

Villiam Wagner erformance Review Inst. 61 Thornhill Rd. Varrendale, PA 15086 USA elephone: 412/772-1616 ax: 412/772-1699 mail: wagner@sae.org Barry Wallen Infellistor Oats 1350 County Rd. #16 P.O. Box 387 Rollinsville, CO 80474 USA Telephone: 303/682-6600 Fax: 303/682-6672 Email: bwallen@intellisfor.com

George Walton AMECA 1101 15th St., NW Ste. 607 Washington, DC 20005 USA Telephone: 202/898-0145 Fax: 202/898-0148

Gan Wang Amtek Inc., US Gauge Div. 8600 Somerset Dr. Largo, FL 33773 USA Telephone: 813/536-7831 Fax: 813/532-3335

Nancy Ward Cotton Incorporated 4505 Creedmoor Rd. Textile Services Lab Raleigh, NC 27612 USA Telephone: 919/510-6117 Fax: 919/881-9874

Chad Warrington Caterpillar, Inc. P.O. Box 1875 MC TC-K Peoria, IL 61656-1875 USA Telephone: 309/578-2852 Fax: 309/578-4491 Email: warries@cat.com Stanely Warshaw NIST Bldg. 820, Rm. 326 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4193 Fax: 301/975-2183 Email: stanley.warshaw@nist.gov

Bob Wayland Sandia National Labs P.O. Box 5800 MS 1367 Albuquerque, NM 87185 USA Telephone: 505/271-7917 Fax: 505/271-7975

Vanda White NIST Bldg. 820, Rm. 282 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-3592

Thomas Wiand Hart Scientific 799 E. Utah Valley Dr. American Fork, UT 84003-9775 USA Telephone: 801/763-1600 Fax: 801/763-1010

Torleie Wiik U.S. Postal Service 495 L'Enfant Plaza Rm. 443 Washington, DC 20260-6204 USA Telephone: 202/268-2108 Herbert Wilgis Penniman & Browne, Inc. 6252 Falls Rd. Baltimore, MD 21209 USA Telephone: 410/825-4131 Fax: 410/321-7384

Matt Williams NEMA 1300 N. 17th St. Rosslyn, VA 22205 USA Telephone: 703/841-3297 Fax: 703/841-3397 Email: mat_williams@nema.org

George Willinmgyre GTW Assoc. 1012 Parrs Ridge Dr. Spencerville, MD 20868 USA Telephone: 301/421-4138 Fax: 301/421-0977 Email: gtw@gtwassociates.com

Joanne Wilson Lucent Technologies 900 19th St. Ste. 700 Washington, DC 20006 USA Telephone: 202/530-7024 Fax: 202/530-7007 Email: jcwilson@lucent.com

Mark Wirtz FDA 200 C St., SW MC HFS-337 Washington, DC 20204 USA Telephone: 202/205-5138 Fax: 202/205-4422 Email: msw@fdacf.ssw.dhhs.gov Sandra Wroblewski Kemper/NATLSCO 1 Kemper Dr. MS K2 Long Grove, IL 60049 USA Telephone: 847/320-2487 Fax: 847/320-4331

Chang-Yu Wu IBM 522 South Rd. MC P355 Poughkeepsie, NY 12590 USA Telephone: 914/435-1822 Fax: 914/432-9831 Email: chang-uyw@vnet.ibm.com

Frank Wu Taipei Econ. & Culture Rep. Office 4301 Connecticut Ave., NW MS 420 Washington, DC 20008 USA Telephone: 202/686-6400 Fax: 202/363-6294

James Yager Food & Drug Admin. 5600 Fishers Lane Rm. 12-41, HFC-140 Rockville, MD 20857 USA Telephone: 301/443-3320 Fax: 301/443-6388

Michael Yakubick Product Test Ctr. Defense Logistics Agy. Bldg. 1-8 New Cumberland, PA 17070 USA Telephone: 717/770-4098 Fax: 717/770-5042 Simone L. Yaniv NIST Bldg. 233, Rm. B108 Gaithersburg, MD 20899-0001 USA Telephone: 301/975-4851 Fax: 301/869-3536

APPENDIX D

NACLA Interim Board of Directors (Selected February 19, 1997) APPENDIX 0 APPENDIX 0 ADDA Interim Bond of Line Police

Interim Board of Directors for the National Council for Laboratory Accreditation (NACLA)

On February 19, 1997, the Laboratory Accreditation Working Group (LAWG) Steering Committee met to elect the NACLA Interim Board of Directors. In accordance with recommendations made by the Nominating Committee, the Steering Committee agreed that:

- The number of Government representatives should be increased from four to five.
- The number of Accrediting Bodies representatives should be increased from three to four.
- The name of the General Interest category should be changed to "Members at Large."
- NIST should continue to serve as the Interim Secretariat for the NACLA Interim Board of Directors.

The Committee further agreed to the following membership for the NACLA Interim Board of Directors:

<u>Chair</u>

Belinda L. Collins, Director Office of Standards Services National Institute of Standards and Technology Building 810, Room 282 National Institute of Standards and Technology (NIST) Gaithersburg, MD 20899 Phone: (301) 975-4000 Fax: (301) 963-2871 E-Mail: belinda.collins@nist.gov

Dr. Collins, a co-chair of the Laboratory Accreditation Working Group (LAWG), chairs the Interagency Committee on Standards Policy (ICSP) and serves on the boards and councils of several major standards developing organizations. Her office is responsible for implementing the Technology Transfer and Advancement Act with respect to coordinating standards and conformity assessment activities within government and with the private sector.

Government Representatives

Linda Horton, JD, Director International Policy Office of Policy Food and Drug Administration 5600 Fisher's Lane, Room 15-74 (HF - 23) Rockville, MD 20857 Phone: (301) 827-3344 Fax: (301) 443-6906 E-Mail: Ihorton@bangate.fda.gov

Ms Horton serves as the Standards Executive for the Food and Drug Administration (FDA) of the Department of Health and Human Services and sits on the ICSP. She has responsibility for all FDA matters pertaining to domestic and international standards issues and policies.

Julius Knapp Federal Communications Commission 7435 Oakland Mills Road Columbia, MD 21046 Phone: (301) 725-1585 Fax: (301) 344-2050 E-Mail: jknapp@fcc.gov

Mr. Knapp, Chief of the FCC Equipment Authorization Division, authorizes telecommunications and electronic equipment to ensure compatibility with FCC technical standards for controlling radio frequency interference. These procedures entail use of accredited test laboratories, a field in which Mr. Knapp has been active, both domestically and with respect to international conformity assessment matters, including MRA negotiations with the European Union.

Michael J. Luwe Naval Warfare Assessment Division Measurement Science Directorate P.O. Box 5000 Corona, CA 91718-5000 Phone: (909) 273-5221 Fax: (909) 273-5446 E-Mail: luwe.michael@corona.navy.mil

Mr. Luwe is Associate Director of the Directorate and has linkages to Joint Service/DOD metrology programs and DOD contractors and laboratories, including the application of laboratory accreditation.

Richard B. Pettit Sandia National Laboratories Mail Stop 0665, P.O. Box 5800 Albuquerque, NM 87185-0665 Phone: (505) 844-6242 Fax: (505) 844-4372 E-Mail: rbpetti@sandia.gov Dr. Pettit is manager of the Primary Electrical Standards Laboratory at Sandia, responsible for the electrical standards and calibration program for the Department of Energy (DOE). He serves on the DOE steering committees responsible for initiatives in metrology and accreditation and is also Chairman of the National Conference of Standards Laboratories (NCSL) committee on Intrinsic/Derived Standards.

Michael Rafalowski Federal Highway Administration 400 Seventh St. SW, HNG-23 Washington, D.C. 20590 Phone: (202) 366-1571 Fax: (202) 366-9981 E-Mail: michael.rafalowski@fhwa.dot.gov

As Leader of the Materials Group, Mr. Rafalowski is responsible for agency policies and guidance in materials sampling and testing. He developed the regulations used for accrediting laboratories that perform particular functions.

Industry Representatives

Louis T. Dixon, Ph.D. Ford Motor Company 330 Town Center Drive, Suite 700C Dearborn, MI 48126 Phone: (313) 337-3800 Fax: (313) 390-6327 E-Mail: Idixon@ford.com

Dr. Dixon, Manager of Body and Chassis Standards in Ford's Automotive Safety and Engineering Standards Office, is responsible for internal processes, test methods, standards and specifications for vehicles, components, and materials, as well as the company's interface for ISO and European (CEN) standards and conformity assessment issues. He was co-chair of the LAWG industry group.

Donald N. Heirman Lucent Technologies/Bell Labs Innovations 101 Crawfords Corner Road, M/S 11C-165 Holmdel, NJ 07733 Phone: (908) 834-1801 Fax: (908) 834-1807 E-Mail: dnheirman@gpcl.lucent.com

Mr. Heirman is the manager of Lucent's global product compliance laboratory, with emphasis on telecommunications and information technology products. An internationally recognized expert and leader in EMC measurements, he is an elected member of the IEEE Standards Board, ANSI Accredited Standards Committee C63 (for EMC), and several other domestic and international committees.

Robert C. Peck, JD, CIH Schering-Plough 1095 Morris Ave. Union, NJ 07083 Phone: (908) 629-3483 Fax: (908) 629-3412 E-mail: robert.peck@spcorp.com

As Director of Safety and Industrial Hygiene for Schering-Plough Corporate, Mr. Peck has world-wide responsibility for industrial hygiene monitoring and a strong interest in the laboratory accreditation programs that support this work. He has participated in the development of industrial hygiene, asbestos abatement, and environmental lead accreditation programs as a committee member, committee chair, and member of the American Industrial Hygiene Association (AIHA) Board of Directors.

Gerald H. Ritterbusch Caterpillar Inc. 100 N.E. Adams St. Peoria, IL 61629-7150 Phone: (309) 675-5287 Fax: (309) 675-6181 E-Mail: ritterbusch_gerald_h@cat.com

Mr. Ritterbusch's corporate responsibilities include conformity assessment for all company products, working with laboratories around the world. He served on the National Research Council committee that developed the recommendations in it report on standards and conformity assessment, especially the need for synergy in laboratory accreditation.

Laboratory Representatives

Anthony Anderson Guildline Instruments 103 Commerce St., Suite 160 Lake Mary, FL 32746 Phone: (407) 333-3327 Fax: (407) 333-3309 E-Mail: TAnders@worldnet.att.net

Mr. Anderson was the 1996 President of the National Conference of Standards Laboratories (NCSL) and is the President and CEO of Guildline Instruments, a manufacturer of standards and calibration instruments and a provider of calibration services. He has had extensive experience in calibration, testing, and measurements and in the subject of technical barriers to trade.

James G. Kendzel NSF International 3745 Plymouth Road Ann Arbor, MI 48105 Phone: (313) 769-5184 Fax: (313) 769-0109 E-Mail: kendzel@nsf.org Mr. Kendzel is Senior Director Corporate QA of the NSF International, responsible for maintaining all NSF accreditations, including state certifications for drinking water analysis, building code body accreditations, and accreditations by ANSI and the Dutch Council of Accreditations (RvA). He serves on the ANSI accreditation Committee and on the ICBO ES Advisory Council on Accreditation.

Dave Krashes ACIL Representative MMR Group, Inc. 241 West Boylston St. West Boylston, MA 01583 Phone (508) 835-6262 Fax: (508) 835-9025 E-Mail: None

Mr. Krashes founded and since 1962 has built a group of multi-accredited independent laboratories. He has been a member of ASTM E-36, Committee on Accreditation, and an active member of LAWG.

Lynne Neumann ACIL Representative Entela, Inc. 3033 Madison Ave SE Grand Rapids, MI 49548 Phone: (616) 247-0515 Fax: (616) 247-7527 E-Mail: Ineumann@entela.com

Ms. Neumann has 20 years of experience in QA and ten in laboratory quality assurance, all in accredited laboratories. She is a member of the working group for the revision of ISO Guide 25, an active participant in ILAC, a member of the A2LA Board, chair of the ACIL Accreditation Committee, and an active participant in LAWG.

Accrediting Bodies

Fred Grunder, CIH American Industrial Hygiene Association 2700 Prosperity Avenue, Suite 250 Fairfax, VA 22031-4320 Phone: (703) 849-8888 Fax: (703) 207-3561 E-Mail: FGRUNDER@aiha.org

Mr. Grunder is Manager of AIHA's Laboratory Accreditation Programs and a member of the ANSI task force that instigated the formation of LAWG, in which he has been an active participant. He is also active in NELAC. In the past, he has directed accredited laboratories and has served on many committees, including two laboratory accreditation committees. He is a member of ASTM, ACS, AAIH, CESSE, and an AIHA Fellow.

C.P. (Chuck) Ramani ICBO Evaluation Service, Inc. 5360 Workman Mill Road Whittier, CA 90601 Phone: (562) 699-0543 Fax: (562) 695-4694 E-Mail: es@icbo.org

Mr. Ramani is Administrator of the ICBO ES laboratory accreditation program and Chairman, ICBO ES Advisory Council on accreditation. He is a member of the APLAC MRA committee and the ASTM E5 and # 36 committees and has previously managed a consumer product testing laboratory, as well as having audited testing agencies in the United States and abroad.

Peter Unger President, A2LA 656 Quince Orchard Rd., #620 Gaithersburg, MD 20878-1409 Phone: (301) 670-1377 Fax: (301) 869-1495 E-Mail: punger@a2la.org

Mr. Unger is President of a diversified private sector accrediting body with prior experience in government, including NVLAP. He has been active in ILAC and in developing Mutual Recognition Agreements with national and regional accrediting bodies and an active participant in LAWG.

William G. Wagner Performance Review Institute 161 Thornhill Rd. Warrendale, PA 15086-7527 Phone: (412) 772-1616 Fax: (412) 772-1699 E-Mail: wagner@sae.org

Mr. Wagner is Managing Director of PRI, with responsibility for the National Aerospace Defense Contractor Accreditation Program (NADCAP).

Members At-Large

John L. Donaldson ANSI 655 15th St. NW, Suite 300 Washington, D.C. 20005 Phone: (202) 639-4191 Fax: (202) 628-1886 E-Mail: jdonalds@ansi.org

Mr. Donaldson is a Vice President of ANSI, responsible for conformity assessment. He was formerly the Chief of the NIST NVLAP Program, Head of the U.S. delegation to ILAC and a member of the ILAC Executive Committee, member of the ISO Guide 58 Working Group, and one of the co-chairs of LAWG.

Doug Geralde Canadian Standards Association (CSA) 178 Rexdale Blvd Etobicoke, Ontario, Canada Phone: (416) 747-4295 Fax: (416) 747-4287 E-Mail: geralded@csa.ca

Mr. Geralde is a Lead Auditor for ISO 9000 in Asia, North America, and Europe; member of the Executive Board of Director International Association of Electrical Inspectors; Manager of Audits and Investigations for Coordination of Corrective Action Policies and Practices; QA Manager of the CSA Certification Division; and has extensive experience with laboratories and accreditation bodies in the United States and many other countries.

Soug Geralde

Té Raxdale Bivd Itobicofes, Ontario, Canada Itone: (41/i) 747-4295 [Fax: (410) M7.438 [-Mail: geraldad@cu.a ca

(A) 7820. 7820.

אתי להמקשתים שלים משפר העולם היידיוני היידיוני וחדרי הבירי שלה היידים היידים המתחילים היידיין הבירי מהל מאיינים מנוספים ההרך העולם להפגיח שלה הנהיה בממלודה לה היידים היידים היידים היידים היידים היידי היידים הייד היידים למאיינים מנוספים להרך עורים היידים היידים היידים בממלודה לה היידים היידים היידים היידים היידים היידים הי היידים למוףים מהמגומה לה עורים היידים להמהימים היידים במחירים להיידים להביידים היידים היידים היידים היידים הייד

