

USAID/GEO

GUYANA ECONOMIC OPPORTUNITIES

Conformity Assessment

Proposed Guyana Structure for Accreditation, Registration, and Certification
and

Training Program: ISO Management Systems for the Laboratory

Trip Report
April 6 - 13, 2003

Prepared by

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Chemonics International Inc.

In association with
Management Systems International, Inc

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Summary Report for Conformity Assessment Activities 7-12 April 2003

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List of Interviews

TAB	OFFICE	Function/Import/Export Interests
1	Mr. Manzoor Nadir, Minister of Tourism, Industry, and Commerce Georgetown	Tourism, Imports, Exports
2	Dr. Chatterpaul Ramcharran, Director Mr. Jowala Somai Guyana National Bureau of Standards Georgetown	National Measurement Body, National Standards and Specifications for Products and Services, Management Systems, Conformity Assessment
3	Mr. William Woolford, Deputy Commissioner Mr. Clyde Thompson Guyana Geology and Mines Commission Brickdam Georgetown	Gold Alloy, Silver Alloy, Construction Stone, Furniture, Silica Sand, Kaolin Clay, Stream Sediment, Soil, Rock Coring, Cartography, Lapidary
4	Dr. Oudho P Homenauth, Director Dr. Patrick Chesney, Program Leader, Organic Cocoa Project National Agricultural Research Institute Mon Repos East Coast Demerara	Research: Soil, Fertilizer, Feed, Plant Pathology, Vegetables, Fruit, Livestock, Agriculture Chemicals, Organic production of Sugar, Cocoa, Honey, Ginger, and Heart of Palm
5	Dr. Lee Van DeSantos, Deputy Director Food and Drugs Department Battery Road Kingston Georgetown	Food Safety, Drinking Water, Cosmetics, Pharmaceuticals,
6	Dr. Roshan Habibullaha, Director Institute of Applied Science and Technology University of Guyana Campus Greater Georgetown	Fish, Shrimp, Water, Soil, Pesticide Residues, Physical testing, Microbiological Testing
7	Mr. Jagnarine Singh, General Manager Guyana Rice Development Board 116-117 Cowan Street Kingston Georgetown	Rice Production and Export, Third Party Inspection, Trade Agreement Oversight,
8	Dr. Leslie Munroe, Director Plant Quarantine Unit Ministry of Agriculture Regent Street Georgetown	Import and Export of Fish Shrimp, Livestock, Produce, Crop Production, Entomological Evaluation
9	Veterinary Public Health Unit Ministry of Health Annexe, Liliendaal East Coast Demerara	(Personnel were unavailable for interview)
10	Ms. Cellestine Butters, Deputy General Manager Ms. Rodlyn Grant – Market Research Officer New Guyana Marketing Corporation Robb & Alexander Streets Georgetown	Processed Food Packaging and Nutritional Labeling for Export Pharmaceutical Packaging and Labeling
11	Ms. Predeepa Bholanath, Economist Guyana Forestry Commission 1 Water Street Kingston Georgetown	Sustainable Forest Management, Forest Product Inspection, Metrication of Timber Products, Furniture Inspection,

Advantages to Conformity to International Standards

Conformity Assessment Organizations

- Provides assessment, auditing, inspection, and third party recognition programs within a structured framework of requirements that are, themselves international in scope
- Provides recognition processes to enhance the credibility of the measurement process involving the data generator and data user that forms an important foundation in the economy
- Provides objective evidence the products and services meet specified requirements

Standards

[ISO 19011, Guidelines for Quality and/or Environmental Management Systems Auditing]

[ISO/IEC Guide 7, Guidelines for Drafting Standards Suitable for Use for Conformity Assessment]

[ISO/IEC 17020, General Criteria for the Operation of Various Types of Bodies Performing Inspection]

[ISO/IEC Guide 58, Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition
(Soon to be replaced by ISO/IEC 17011, General requirements for Bodies Providing Assessment and Accreditation of Conformity Assessment Bodies)]

[ISO/IEC Guide 61, General Requirements for Assessment and Accreditation of Certification / Registration Bodies]

[ISO/IEC Guide 62, General Requirements for Bodies Operating Assessment and Certification / Registration of Quality Management Systems]

[ISO/IEC Guide 65, General Requirements for Bodies Operating Product Certification Systems]

[ISO/IEC Guide 66, General Requirements for Bodies Operating Assessment and Certification / Registration of Environmental Management Systems]

Laboratories and Inspection Organizations- Data Generators

- Provides a structured management system for laboratory and inspection operations that stresses competence for the inspector, analyst, and the laboratory
- Provides third party recognition of competence
- Provides a defined process for the data user in interfacing with the laboratory and inspection operations
- Assures professional standards are defined and communicated to the employee
- Provides a structured means to address regulatory requirements
- Outlines the steps necessary for quality assurance of laboratory and inspection data destined for the customer
- Demonstration of a commitment to providing data to the customer that is "fit for purpose"
- Provides records to demonstrate conformity to requirements thereby reducing the need for multiple assessment and audits
- Increased liability protection through use of laboratory and inspection standards that are recognized world wide
- Reduction in insurance premiums

Accreditation Standards

[ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories]

[ISO/IEC 17020, General Criteria for the Operation of Various Types of Bodies Performing Inspection]

Manufacturing, Exporting, and Importing - Data Users

Quality Management Systems

- Enhancement of product quality and reliability at a reasonable cost
- Simplify product and service usability
- Increase distribution efficiency and ease of maintenance
- Contribute to cost savings and the profitability of processes
- Increased market share
- Reduced liability, directly and indirectly
- Enhanced position in the competitive marketplace
- Defined management system to facilitate communication of processes to employees
- Meet customer requirements
- Provides records to demonstrate conformity to requirements thereby reducing the need for multiple assessment and audits
- Improvement of supplier performance
- Foundation for continual improvement

Environmental Management Systems

- Improve environmental protection, health, and safety
- Pollution prevention
- Waste reduction that also enhances profitability
- Identification and efficient management of raw materials
- Reduction of liability
- Enhanced relations with regulatory agencies
- Enhanced relations with lending institutions
- Reduction in insurance premiums
- Increased market share
- Meet customer requirements
- Public credibility
- Sustainable development

Registration Standards

[ISO 9001:2000, Quality Management Systems – Requirements]

[ISO 14001:1996, Environmental Management Systems – Specifications with Guidance for Use]

[Product and Service Standards]

Certification Products and Services

- Enhancement of product quality and reliability at a reasonable cost
- Increase distribution efficiency and ease of maintenance
- Contribute to cost savings and the profitability of processes
- Increased market share
- Reduced liability, directly and indirectly
- Enhanced position in the competitive marketplace
- Meet customer requirements
- Provides records to demonstrate conformity to requirements thereby reducing the need for multiple assessment and audits
- Improvement of supplier performance
- Foundation for continual improvement

Accreditation Standards

ISO/IEC Guide 65, General Requirements for Bodies Operating Product Certification Systems

International Laboratory and Inspection Accreditation Scheme

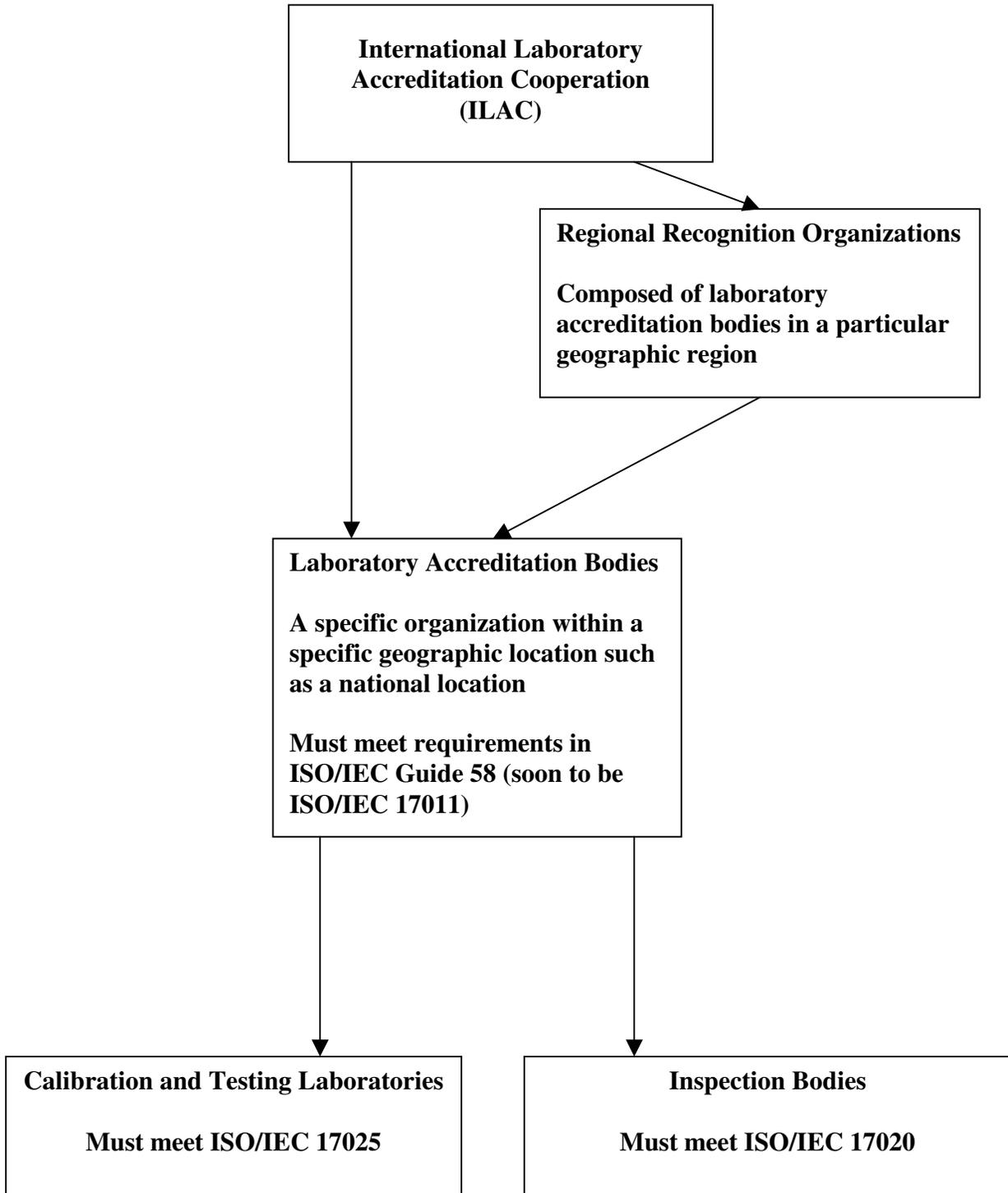


FIGURE 1

International Accreditation of Registrars and Certification Bodies

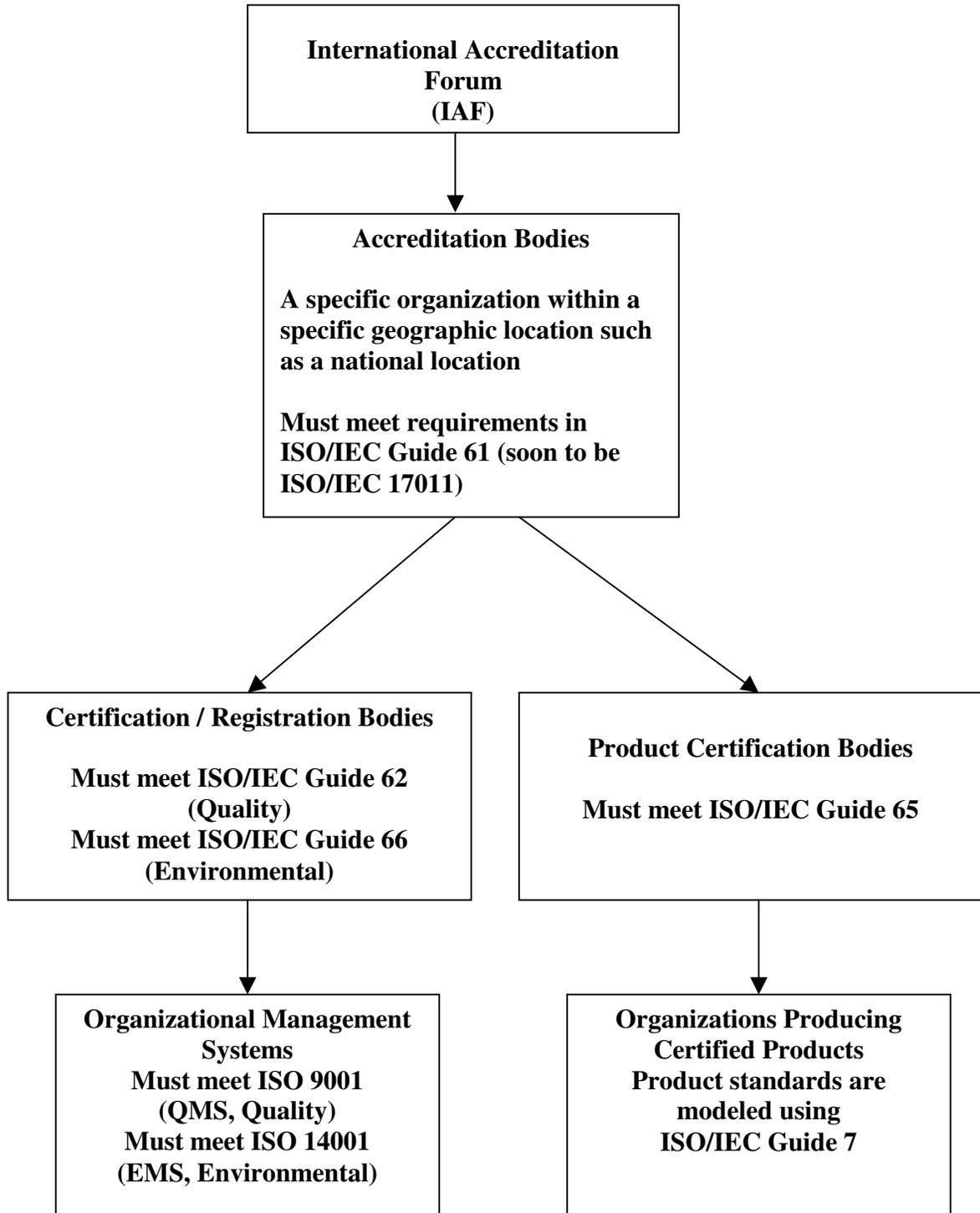


FIGURE 2

Path to Accreditation or Registration – A Project Management Activity

Phase One – Introduction and Training

Activity	Days On-Site	Days Off-Site	Personnel Involved	Deliverables/Products	Resources
ISO Training	4	0	Management, Supervision, and Steering Committee 10 - 20	Introduction to the Standard, Implementation & Documentation Preparation	External
ISO Training	0	5	Management Representative (ISO Champion), 2	ISO 9001 Lead Auditor Course (accredited)	External
ISO Training	5	0	Individuals seeking auditor certification 10 / one instructor >10 >20 / two instructors	ISO 9001 Lead Auditor Course (accredited) International rules require no absences and a 2 hr. Semi-open book exam	External
ISO Training	3	0	Internal Auditors, 3 - 10	Internal Auditor Course	External
ISO Training	1	0	All Affected Personnel ≤ 50	Introduction to the Standard Course	Internal
Gap Assessment	TBD	TBD	All Affected Personnel	Assessment Report and Draft Gantt Chart	External

Phase Two – System Preparation

Activity	Days On-Site	Days Off-Site	Personnel Involved	Deliverables/Products	Resources
System Document Preparation, Awareness, Training,	Gantt Chart	Gantt Chart	User Group / Committee of All Affected Personnel	Policy Manual, Procedures, Operating Criteria (Work Instructions), Job Descriptions, Establishing a Sampling of the Records that the system will routinely generate in preparation for the Readiness Evaluation	Internal

This phase is the most involved with respect to resource utilization. The organization must establish and implement the system.

Phase Three – Certification

Activity	Days Off-Site	Days On-Site	Personnel Involved	Deliverables/Products	Resources
Pre-Audit	TBD	TBD	All Affected Personnel	Pre-Audit Report	External
Document Audit	2-3	0	All Affected Personnel	Document Audit Report	External
Readiness Evaluation, Phase I *	0	2-4	All Affected Personnel	Readiness Evaluation Report	External
Conformity Audit, Phase II *	0	2-4	All Affected Personnel	Conformance Audit Report	External
NCR Closure and Follow-Up Activities	0	TBD	All Affected Personnel	Nonconformity Reports, Target Dates, Corrective Actions, Preventive Actions, and Letter of Closure	Internal
Issue of Certificate	0	0	Issue by Mail	Certificate	External

* Readiness Evaluation, Phase I and the Conformity Audit, Phase II are generally separate for ISO 14001 audits.
 Readiness Evaluation, Phase I and the Conformity Audit, Phase II are generally combined for ISO 9001 audits.

Proposed Guyana Structure for Accreditation, Registration, and Certification

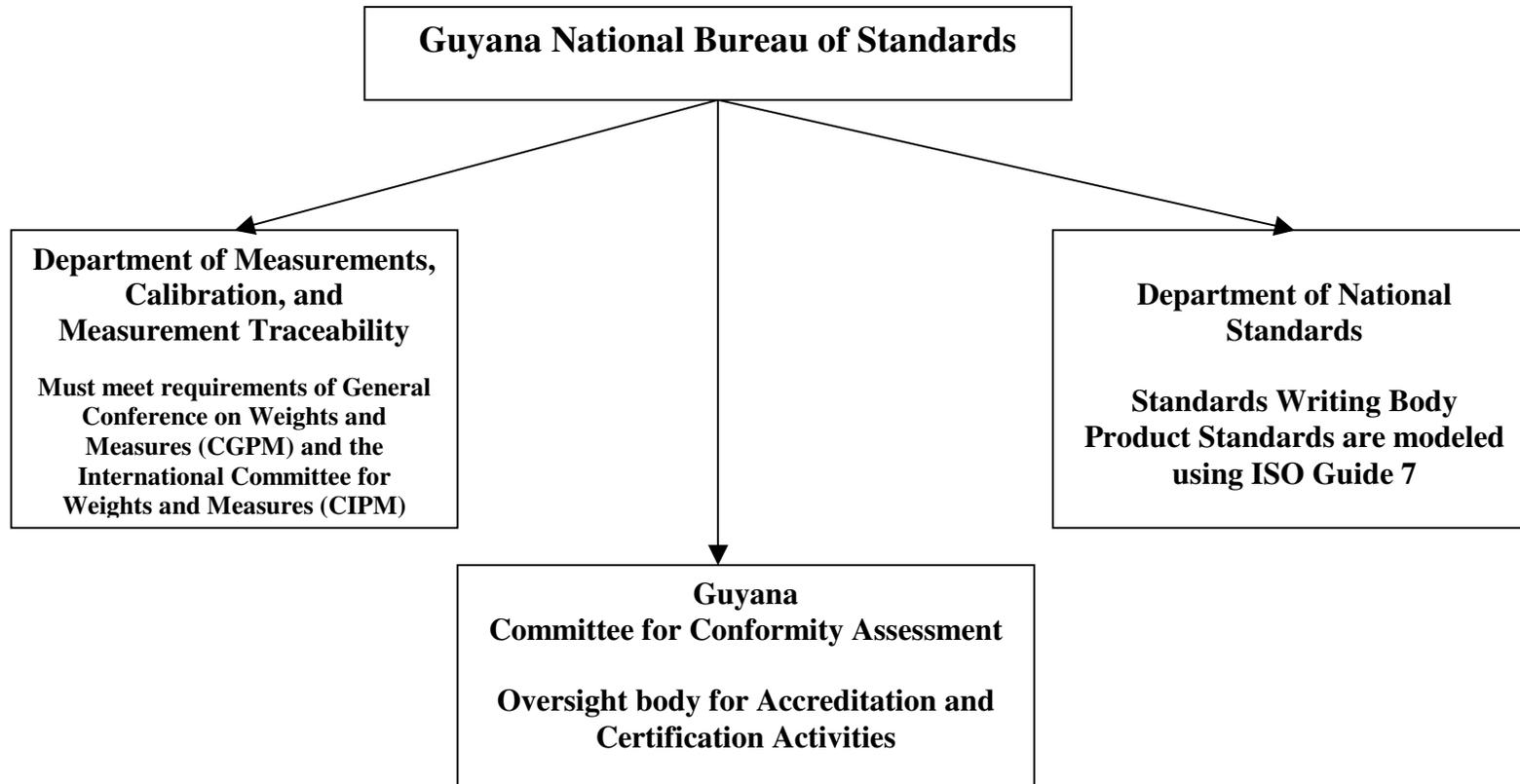


FIGURE 1

Proposed Guyana Structure for Accreditation, Registration, and Certification

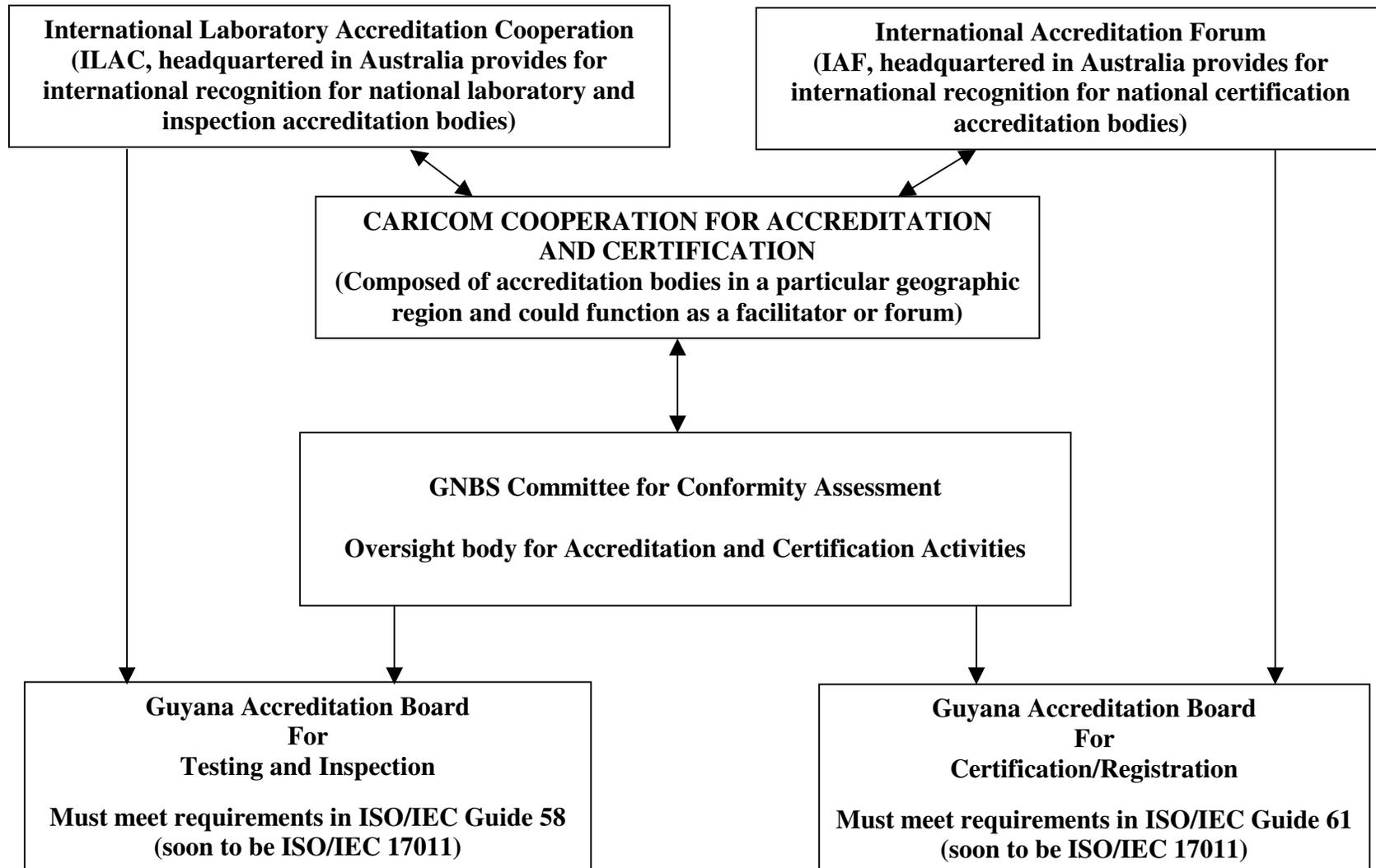


FIGURE 2

Proposed Guyana Structure for Accreditation, Registration, and Certification

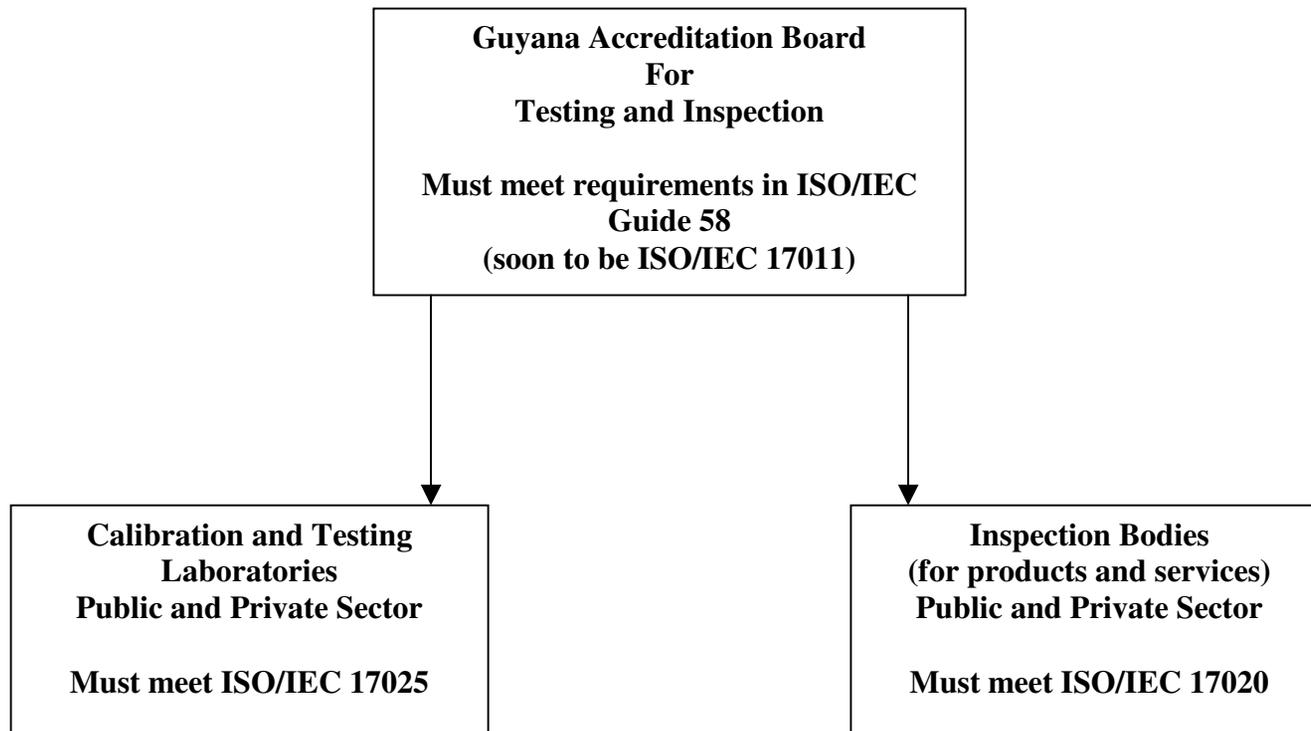


FIGURE 3

Proposed Guyana Structure for Accreditation, Registration, and Certification

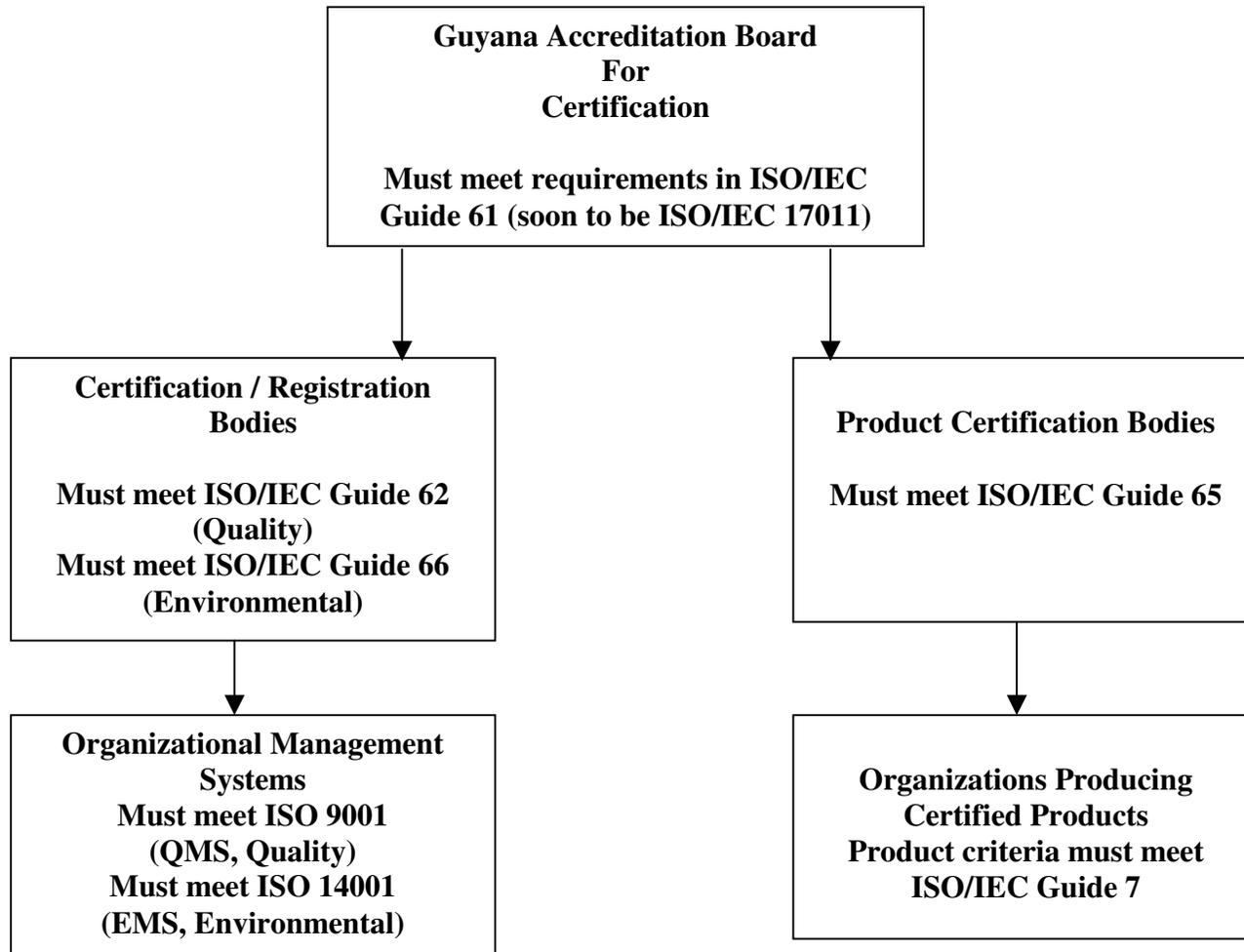


FIGURE 4

Recommendations

I. Immediate Interests

A. User Groups for ISO/IEC Guide 65, ISO/IEC 17025, ISO/IEC 17020, ISO 9001, and ISO 14001

User Groups should be organized to facilitate the implementation of the requirements in the ISO standards. Each User Group should be charged with the task of preparing draft documents required by the respective standard. These drafts should address the minimum requirements in the respective standard.

A set of the drafts could then be distributed to the specific member organization for review and revision. Such revision could add text to address specific additional needs. The organization should *not* remove text from the original drafts. The intent should be that the User Group drafts should meet the minimum requirements in the standard of interest.

The intent of such an approach should be to minimize the use of resources and maximize productivity. Each User Group should develop an audit team to conduct gap audits to identify existing elements that may be used in the system and to identify the elements that need to be established. Such user groups should be required to meet as scheduled and work under a strategy defined in a Gantt chart to produce the documents needed for accreditation.

Suggested User Groups:

ISO/IEC Guide 65 User Group
ISO/IEC 17025 User Group
ISO/IEC 17020 User Group
ISO 9001 User Group
ISO 14001 User Group

B. Laboratory Accreditation

Until a decision is reached concerning the establishment of a laboratory accreditation body, utilization of an external accreditation body would be required for laboratory accreditation in Guyana. The selection should be based upon the following:

- [1] Is the accreditation body recognized as meeting the requirements in ISO/IEC GUIDE 58 (ISO/IEC 17011)?
- [2] Does the accreditation body use ISO/IEC 17025 as part of the accreditation criteria?
- [3] Is the accreditation body experienced in the sector of interest?

- [4] What are the contractual policies?
- [5] What is the financial and business stability of the accreditation body?
- [6] Is the accreditation logo recognized in the geographical area of interest?
- [7] In addition to the standards, the laboratory must comply with the “rules of the accreditation body” set forth in the contract. Are the details of the “rules of accreditation” clearly furnished to the laboratory?
- [8] What is the cost of accreditation including the maintenance of accreditation?
- [9] How long does it take to become accredited?
- [10] How are the auditors chosen?
- [11] How does the laboratory participate in choosing the auditors?
- [12] What are the accreditation maintenance requirements of the accreditation body?
- [13] What is the process for establishing the scope of accreditation?

NOTE: The laboratory should participate in the selection of the accreditation auditors.

Once these issues are addressed, a contractual agreement may be made with the accreditation body.

C. Inspection Body Accreditation

Until a decision is reached concerning the establishment of an inspection accreditation body, utilization of an external accreditation body would be required for inspection accreditation in Guyana. The selection should be based upon the following:

- [1] Is the accreditation body recognized as meeting the requirements in ISO/IEC GUIDE 58 (ISO/IEC 17011)?
- [2] Does the accreditation body use ISO/IEC 17020 as part of the accreditation criteria?
- [3] Is the accreditation body experienced in the sector of interest?
- [4] What are the contractual policies?
- [5] What is the financial and business stability of the accreditation body?
- [6] Is the accreditation logo recognized in the geographical area of interest?

- [7] In addition to the standards, the laboratory must comply with the “rules of the accreditation body” set forth in the contract. Are the details of the “rules of accreditation” clearly furnished to the laboratory?
- [8] What is the cost of accreditation including the maintenance of accreditation?
- [9] How long does it take to become accredited?
- [10] How are the auditors chosen?
- [11] How does the inspection organization participate in choosing the auditors?
- [12] What are the accreditation maintenance requirements of the accreditation body?
- [13] What is the process for establishing the scope of accreditation?

NOTE: The inspection organization should participate in the selection of the accreditation auditors.

Once these issues are addressed, a contractual agreement may be made with the accreditation body.

D. Registration of GNBS to ISO 9001-2000

Until a decision is reached concerning the establishment of a registration accreditation body, utilization of an external registration body would be required for registration in Guyana. The selection should be based upon the following:

- [1] Is the registrar recognized as meeting the requirements in ISO/IEC GUIDE 58 (ISO/IEC 17011)?
- [2] Is the registrar experienced in the sector of interest?
- [3] What are the contractual policies?
- [4] What is the financial and business stability of the registrar?
- [5] Is the registration logo and the registrar's accreditation body logo recognized in the geographical area of interest?
- [6] In addition to the standards, the GNBS must comply with the “rules of the registrar” set forth in the contract. Are the details of the “rules of registration” clearly furnished to GNBS?
- [7] What is the cost of registration including the maintenance of registration?

[8] How long does it take to become registered?

[9] How are the auditors chosen?

[10] How does GNBS participate in choosing the auditors?

[11] What are the registration maintenance requirements of the registrar?

[12] What is the process for establishing the scope of registration?

NOTE: The GNBS should participate in the selection of the registration auditors.

Once these issues are addressed, a contractual agreement may be made with the registrar.

E. Pesticide Residue Laboratory

A pesticide residue laboratory capability is needed to evaluate produce, processed foods, fish and shrimp for export to markets requiring pesticide residue analysis for evaluation against product acceptance criteria. Technology for consideration would be GC/MS and HPLC/MS for low level detection.

F. Nutrition Laboratory

A nutrition laboratory capability is needed to evaluate produce, processed foods, fish and shrimp for export to markets requiring nutritional labeling criteria for consumer markets.

G. Auditor Training

Auditor training based upon the new ISO 19011: 2002, Guidelines for Quality and/or Environmental Management Systems Auditing should be included in the Conformity Assessment scheme. This standard is an example of the document consolidation that is occurring within the International Organization for Standardization (ISO).

Note: ISO 19011 has recently replaced the following:

ISO 10011-1: 1990, Guidelines for Auditing Quality Systems - Part 1: Auditing

ISO 10011-2: 1991, Guidelines for Auditing Quality Systems - Part 2: Qualification Criteria for Quality Systems Auditors

ISO 10011-3:1991, Guidelines for Auditing Quality Systems - Part 3: Management of Audit Programmes

ISO 14010: 1996, Guidelines for Environmental Auditing - General Principles of Environmental Auditing

ISO 14011: 1996, Guidelines for Environmental Auditing - Audit Procedures Part 1: Auditing of Environmental Management Systems

ISO 14012: 1996, Guidelines for Environmental Auditing - Qualification Criteria for Environmental Auditors

An accredited ISO 9001 Lead Auditor course could be provided in Guyana or representatives sent to another location to attend the course.

H. Auditor Certification - ISO 9001 and ISO 14001

Until a decision is reached concerning the establishment of an auditor certification body, utilization of an external auditor certification would be required for auditor certification in Guyana.

Auditor candidates would be required to successfully complete an accredited training course, accrue the requisite number of audits, and the requisite number of audit days. Application, including the requisite number of attestations and fees, should be submitted to the auditor certifying body. Auditor certification could be conducted through the mail.

II. Long Term Interests

A. Laboratory and Inspection Accreditation Body

A laboratory and inspection accreditation body could be established to meet the requirements of ISO/IEC Guide 58, Calibration and Testing Laboratory Accreditation Systems - General Requirements for Operation and Recognition. Guide 58 is presently under revision and is to be published as ISO/IEC 17011. The International Laboratory Accreditation Cooperation (ILAC) www.ilac.org headquartered in Australia coordinates the recognition process for laboratory accreditation bodies around the world. Guyana would follow the guidance provided in the ILAC documents. Some laboratory accreditation bodies such as the American Association for Laboratory Accreditation www.a2la.net accredits laboratories and organizations that conduct inspections.

B. Registrar Accreditation Body

An accreditation body could be established to meet the requirements of ISO/IEC Guide 61, General Requirements for Assessment and Accreditation of Certification / Registration Bodies. This document is presently under revision and is to be published as ISO/IEC 17011. The International Accreditation Forum (IAF) www.iaf.nu headquartered in Australia coordinates the recognition process for accreditation bodies that accredit certification/registration bodies around the world. Guyana would follow the guidance provided in the IAF documents. Registrars are available from many countries. Many operate as international organizations.

C. Product Certification Body

A product certification body could be established to meet the requirements of ISO/IEC Guide 65, General Requirements for Bodies Operating Product Certification Systems. A product certification body would require (1) a laboratory accredited to ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories and (2) an inspection body accredited to ISO/IEC 17020, General Criteria for the Operation of Various Types of Bodies Performing Inspection. The combination of the three recognized bodies operating in concert would provide a strong arrangement for addressing the export and import interests of Guyana. The American National Standards Institute www.ansi.org conducts accreditation to ISO/IEC Guide 65.

III. For Consideration

National Testing Laboratory Program

A national testing laboratory program could be established to provide systematic management to laboratory testing resources. Organization of a testing program along the lines of test technologies could provide:

- (1) a means of addressing analytical needs in an efficient manner;
- (2) effective and efficient use of testing resources;
- (3) efficient laboratory management;
- (4) easier communication within the testing community;
- (5) efficient safety and security management;
- (6) efficient use of testing equipment;

Prospectus of Issues for the Proposed Visit 15-25 May 2003

- (1) A meeting is suggested with the Minister of Tourism, Industry, and Commerce for the presentation of a proposed structure for conformity assessment (Time to be determined).
- (2) A meeting is suggested of organizations identified in the Chemonics Circulation List for presentation of a proposed structure for conformity assessment (half day).
- (3) A Meeting of the ISO/IEC 17025 User Group (class attendees) is suggested for questions, clarification, and feedback from the training conducted 9-12 April 2003 (half day).
- (4) An ISO 9001 Gap Assessment for the Guyana National Bureau of Standards has been requested. It would entail the examination of the following documents: Quality Manual (1), Quality Procedures (6), Process Flow Charts (4) [3 additional ones are needed], Work Instructions (number not identified), and Records (two Days).
- (5) For the proposed ISO 9001 Implementation Training (five days), it is suggested that this include ISO 14001 implementation since the application of agriculture, mining, and forestry practices have a direct bearing on the quality of exported food stuffs.

The ISO/IEC 17025 class indicated that there was an abundance of material to be addressed in the short time allotted for an initial exposure. Additional training time was suggested.

- (6) Representatives from the University of Guyana requested contact information for the accreditation of the University. It is the writer's understanding that the academic accreditation process is centered about regional associations. The writer has experience with academic accreditation but that experience is not recent. Research is needed.
- (7) Exploration of accreditation standards for research laboratories, i. e. EUROCHEM/ CITAC Quality Assurance for Research & Development and Non-routine Analysis.
- (8) Discussion with GNBS concerning auditor training options.

Training Attendees and Evaluation of Training

Course:	ISO Management Systems for the Laboratory
Location:	Georgetown Club, Georgetown, Guyana
Training Dates:	9-12 April 2003
Instructor:	James H. Scott

No.	Name	Organization	Phone
1	Mr. Henry Merchant, Quality Assurance Manager	Banks DIH Limited	226 8795
2	Ms. Tansy Pile	Guyana Water Incorporated	225 0471-5
3	Ms. Jewel Sears, Scientific Officer	Food and Drugs Department	226 8795
4	Ms. Naneeka Taylor, Scientific Officer	Food and Drugs Department	226 8795
5	Mr. Dominique McKlom	Guyana Geology & Mines Commission	225 2862
6	Mr. Clyde G. Thompson	Guyana Geology & Mines Commission	225 2862
7	Mr. George Singh	Demerara Distillers Limited	265 6000
8	Mr. Chinta Rampersad	New Guyana Pharmaceutical Corporation	265 4261
9	Mr. Esan Nelson	Sterling Products Limited	265 4957
10	Ms. Patricia London-Payne	Guyana Sugar Corporation	220 2050
11	Mr. Michael Balmakund	Guyana Sugar Corporation	220 2050
12	Mr. Clinton Thornton	Guyana Power and Light Incorporated	226 3577
13	Mr. Bruce Haynes	University of Guyana	222 3544
14	Mr. Basil Dey	University of Guyana	222 3544
15	Ms. Allison Peters	Guyana Rice Development Board	225 8618
16	Ms. Michelle Lutchman, Research Assistant	National Agricultural Research Institute	220 2841
17	Ms. Rajkumarie Sookraj, Research Assistant	National Agricultural Research Institute	220 2841
18	Mr. Jowala Somai	Guyana National Bureau of Standards	225 9041
19	Mr. Anthony Ross	Guyana National Bureau of Standards	225 9041
20	Ms. Candelle Walcott	Guyana National Bureau of Standards	225 9041
21	Mr. Robindranauth Bridgemongal	Guyana National Bureau of Standards	225 9041
22	Ms. Ramrattie Karan	Guyana National Bureau of Standards	225 9041
23	Mr. Jermaine Softley	Guyana National Bureau of Standards	225 9041
24	Ms. Candaicy David	Guyana National Bureau of Standards	225 9041
25	Mr. Shailendra Rai	Guyana National Bureau of Standards	225 9041
26	Ms. Mezan Geletna Mohammed	G & C Sanata	226 3330
27	Ms. Vanita Soman	Edward B. Beharry and Company	277 0382
28	Ms Sandrene Abrams	Guyana Geology & Mines Commission	225 2862
29	-----	National Milling Company	233 2463

Course Evaluation

Data Set: Twenty-four responses out of twenty-eight were provided. Four left early, two were ill and two for personal reasons.

In order to address the needs of course participants, please provide your input. This information is appreciated and is vital to commitment to continual improvement. The scale below ranges from 5 to 1. The values are defined below:

	5 = Excellent	4 = Very Good	3 = Good	2 = Fair	1 = Poor
	5	4	3	2	1
1. Clarity of material content	24/24				
2. Usefulness to your needs	13/24	8/24	3/24		
3. Opportunity to ask questions	21/24	3/24			
4. Instructor's responsiveness	21/24	3/24			
5. Instructor's enthusiasm	24/24				
6.					

Please describe your experience in this course.

Informative; Broadened horizons; Diversified knowledge on management systems; New concepts and new principles; Acquired a lot of knowledge about ISO 17025; First exposure to the subject; Enlightening and educational; Stimulating and informative. I am ready to write the quality manual; Knowledge to improve quality in the laboratory; Educational, Opportunity for interaction with an expert; Responsibility of laboratories was clarified; Immense value for the future; Interesting, Enlightening; Plenty of food for thought, need further exposure; Opportunity for new experience; Informative as to quality systems and document control; Large amount of relevant information; Very good, I will apply what I learned to my organization; Understanding of ISO 17025 for implementation; Develop a quality manual tailored to my needs; A learning process;

What is your opinion concerning the length of the course?

Too short ___6___ **Sufficient** ___15___ **Too long** ___3___

What other course topics would be of interest to you?

Registration and certification [accreditation] to ISO 17025; Sampling Techniques; Calibration; Anything pertaining to my field; ISO 9001, ISO 19011, ISO 14001; Statistical Process Control; Research and educational laboratories; Quality management, environmental management, Auditing; ISO 9001; Laboratory waste management; Statistical methods, Lead Auditor training; Registration and certification [accreditation] to ISO 17025; Disposal of chemical waste; Auditing of quality systems; Auditing of ISO 17025; ISO 9001, Auditing; Any topic related to laboratory management; Any course in quality management;

Would you recommend the course to colleagues? ___Yes_24___ ___No_0___

What changes to the course would you recommend?

Fifteen - No Changes; Seven - Shorter days and more days; Two - Requested changes in ISO/IEC 17025 Standard that is the responsibility of the ISO/CASCO Committee; One - Inclusion of workshop activities