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The MAAFS Newsletter is the official publication of the Mid-Atlantic Association of Forensic Scientists, Inc., and is published at least twice each year. All communications regarding the Newsletter should be sent to the Editor, Dr. Edward Sykes Franzosa, at the DEA Special Testing & Research Lab, 7704 Old Springhouse Road, McLean, Virginia 22101.

CERTIFICATION CONTINUED

In this issue of the MAAFS Newsletter you will find the minutes of the first meetings of the National Drug and Serology Peer Groups. If you have comments please forward them to a representative of the appropriate MAAFS Regional Peer Group (the MAAFS Regional Peer Group members will forward all the suggestions and comments to the Regional Peer Group Chairmen.) Now, while the certification programs are being formed, is your chance to affect the results.

MAAFS Serology Regional Peer Group

Cornelius Glen McWright, Chairman
FBI Laboratory, Washington, DC

Daniel Garner
BATT Laboratory, Rockville, MD

Peter Marone
Virginia Bureau of Forensic Science, Richmond, VA

Ralph Plankenhorn
Pennsylvania State Police Crime Lab, Greenburg, PA

MAAFS Drug Regional Peer Group

James Moore, Chairman
DEA Laboratory, McLean, VA

Delbert Agee
Virginia Bureau of Forensic Science, Richmond, VA

Jew-ming Chao
Burlington County Forensic Lab, Mount Holly, NJ

Edward Franzosa
DEA Laboratory, McLean, VA

Karl Hepner
Virginia Bureau of Forensic Science, Merrifield, VA

Robin Porter
Virginia Bureau of Forensic Science, Richmond, VA

NATIONAL PEER GROUPS

SEROLOGY

Henry C. Lee, Ph.D.
Connecticut State Police Department
Forensic Science Laboratory
Box A-D, Amity Station
New Haven, Connecticut 06525
(203) 789-7716

Donald C. MacLaren
Western Washington State Crime Laboratory
Public Safety Building
Seattle, Washington 98104
(206) 464-7074

Cornelius Glen McWright, Ph.D.
Chief of Research, FBI Laboratory
Tenth Street and Pennsylvania Avenue
Washington, D.C. 20535
(202) 324-4420

George F. Sensabaugh, D.Crim.
Asst. Professor of Forensic Science
University of California
School of Public Health
Berkeley, California 94720
(415) 642-1271, 642-4587 (lab)

Mark D. Stolorow
Serology Coordinator
Training and Applications Laboratory
Illinois Department of Law Enforcement
Bureau of Scientific Services
515 East Woodruff Road
Joliet, Illinois 60432
(815) 727-5301

Liaison Representative to CCSC
Willard C. Stuver
Dade County Crime Laboratory
1320 NW 14th Street
Miami, Florida 33125
(305) 547-7332

DRUGS

Cecil L. Hider
California Department of Justice
820 Francis Botello Road
Goleta, California 93107
(805) 964-8741

William P. Marshall
Idaho Department of Health and Welfare
Bureau of Laboratories
2220 Old Penitentiary Road
Boise, Idaho 83702
(208) 384-2231

James M. Moore
Drug Enforcement Administration
Special Testing and Research Laboratory
7704 Old Springhouse Road
McLean, Virginia 22102
(703) 557-1495

F. Taylor Noggle, Jr.
Alabama Department of Forensic Sciences
Post Office Box 231
Auburn, Alabama 36830
(205) 887-7001

Alexander M. Stirton, II
Pennsylvania State Police Crime Laboratory
Post Office Box 2005
Bethlehem, Pennsylvania 18001
(215) 691-6110, ext. 256

Philip R. Whittle, Ph.D.
Regional Crime Laboratory
Missouri Southern State College
Joplin, Missouri 64801
(417) 624-8100, ext. 292

Liaison Representative to CCSC
Stanley P. Sobol
Drug Enforcement Administration
Special Testing and Research Laboratory
7704 Old Springhouse Road
McLean, Virginia 22102
(703) 557-1497

Minutes of the First Drug Chemistry Peer Group Meeting

Held At The Drug Enforcement Administration,

Special Testing and Research Laboratory

McLean, Virginia

May 4-5, 1979

Present were: Joseph L. Peterson, Executive Director, Forensic Science Foundation; John O. Sullivan, Manager, Forensic Science Programs, LEAA; Stanley P. Sobol, DEA, Co-ordinator; Cecil L. Hider, California Dept. of Justice, Coleta, CA; William P. Marshall, Idaho Dept. of Health & Welfare, Boise, Idaho; James M. Moore, DEA, McLean, VA; F. Taylor Noggle, Jr., Alabama Dept. of Forensic Sciences, Auburn, AL; Alexander M. Stirton, II, Penn. State Police Crime Lab, Bethlehem, PA; Philip R. Whittle, Ph.D., Regional Crime Lab, Missouri Southern State College, Joplin, Missouri.

The meeting began at 8:30 a.m. and was called to order by Joseph L. Peterson, D. Crim., Executive Director of the Forensic Sciences Foundation, Inc. A short presentation on the status of forensic certification programs in toxicology, odontology, psychiatry anthropology, and documents examinations was given. During the discussion a question concerning certification of individuals conducting toxicological examinations in the nation's crime laboratories was clarified by Dr. Peterson. He stated the American Board of Forensic Toxicology (ABFT) has agreed to assume responsibility for drafting guidelines for an alternate certification track where a Ph.D. would not be a minimum requirement. The ABFT has indicated, though, their interest is in certifying general toxicologists, not individuals specializing in a single area such as blood alcohol analyses. Persons interested in making input into these ABFT guidelines should contact either:

Larry B. Howard, Ph.D., State Crime Laboratory, P.O. Box 1456, Atlanta, Georgia 30301, (404) 656-6055

or

Robert V. Blanke, Ph.D., MCV Hospital Toxicology Laboratory, Box 696, MCV Station, Richmond, Virginia 23298, (804) 786-0272.

The Drug Chemistry Peer Group is to have a final package for presentation to the Criminalistics Certification Study Committee by August 1979 and a package prepared for presentation and balloting by the fall 1979 meetings of the regional organizations.

Officers for the Drug Chemistry Peer Group were nominated and elected by the members of the Peer Group. Cecil Hider was elected to serve as Chairman and Taylor Noggle was elected to serve as Secretary.

The Peer Group began by defining the scope of the task which it would be considering and defined forensic drug chemistry as follows:

Forensic Drug Chemistry is that profession and scientific discipline directed to the recognition, identification, and evaluation of suspected controlled substances.

The areas in which forensic drug chemists would be required to show proficiency would be in (1) presumptive tests, (2) separation techniques, (3) identification techniques, and (4) quantitative techniques.

In order to qualify for certification the applicant must meet the following requirements:

Formal Education

An earned baccalaureate degree in a natural science or appropriately related field from an accredited institution. The degree must include courses in inorganic chemistry, organic chemistry, qualitative analysis and quantitative analysis. The applicant is required to submit a transcript for verification.

Work Experience

The applicant must have a minimum of two years forensic science laboratory experience during which time duties included the qualitative and quantitative analysis of suspected controlled drugs. Experience should include familiarization with: (1) chromatography, (2) spectrometry, (3) microscopy, (4) wet chemical methods, and (5) the origin and chemistry of controlled substances. Applicants must be engaged in the practice of forensic drug chemistry at the time of application in order to be certified as a forensic drug chemist.

Note: Each Peer Group member should discuss with his regional organization whether a statement concerning the applicants area of endeavor should be included at this point. This would be a statement with regard to case work, research, supervision, or teaching.

Court Experience, Publications, Professional Activities

Court experience, publications, and membership in professional organizations are not required in order to become an applicant for certification as a Forensic Drug Chemist.

Type of Examination to be Given and Preparation of a Sample Exam

The Drug Chemistry Peer Group recommended a combination examination consisting of (1) a written test and (2) a proficiency test.

The Written Examination

The written examination will consist of approximately 50-100 primarily objective questions. Included in the examination will be questions in the following areas:

I. Spectrometry - Theory and Application

- A. UV-Vis
- B. IR
- C. GC/MS
- D. Fluorescence

II. Chromatography - Theory and Application

- A. TLC
- B. GLC
- C. HPLC
- D. Column Chromatography

- III. Microscopy - Theory and Application
 - A. Microcrystalline Tests
 - B. Polarizing Microscope
 - C. Melting Point Determination
 - D. Optical Crystallography
- IV. Wet Chemical Methods - Theory and Application
 - A. Spot Tests
 - B. Solvent Extractions
 - C. Distillations
 - D. Derivatization
 - E. Volumetric and Gravimetric Analysis
- V. Origin and Chemistry of Controlled Substances
 - A. Synthesis and/or Manufacture
 - B. General Structural Relationships
 - C. Isomers

The members of the Peer Group should formulate questions from each of the areas with the following members giving special emphasis to the areas outlined below.

Spectrometry - James M. Moore

Chromatography - Philip R. Whittle

Microscopy - William P. Marshall & Cecil L. Hider

Wet Chemical Methods - F. Taylor Noggle, Jr.

Origin & Chemistry of Controlled Substances - Alexander M. Stirton, II

The questions which are prepared will be screened at the next Peer Group meeting and these questions will be combined into the first examination. Each member should bring approximately twelve (12) copies of the sample questions to facilitate the screening process.

A syllabus or bibliography should be prepared to provide the applicant with a study guide for the examination as well as having several sample questions to show the type examination.

Each member of the Peer Group should also prepare questions on the more general area of criminalistics as outlined by the Criminalistics Certification Study Committee (CCSC) in the minutes of the Fifth Meeting.

- I. Basic Principles of Identification and Individualization
- II. Scientific Methodology
- III. Evidence Handling
- IV. Basic Microscopy
- V. Communication
- VI. Legal Aspects and Court Testimony
- VII. Literature of Criminalistics
- VIII. General Knowledge of Criminalistics

The examination is tentatively scheduled to be given only once a year. Each Peer Group representative should solicit comments from the regional organizations concerning frequency of the examination and the mechanics of

administering the exam. The two mechanisms suggested for administering the examination were: (1) give the examination in conjunction with a regularly scheduled local organization meeting and (2) the appointment of regional examination committees to administer the examination at sites more conveniently located to applicants. Control of the examination must be maintained at all times to insure the secrecy of the test.

The Proficiency Test

The proficiency test will consist of five unknown samples which will be mailed to the applicants at one time with a specified period for completion and return of the results. Each applicant is required to identify all five samples correctly. Two of these samples would also require quantitation. An exact percentage on the samples to be quantitated will not be required but only certain acceptable limits will be considered accurate. Alexander M. Stirton, II, will develop a graph for members of the Peer Group showing acceptable values for proficiency samples to be quantitated.

The samples to be given to applicants will be substances which are currently being encountered in forensic science laboratories.

"Grandfathering"

Candidates who possess a minimum of 5 years forensic science laboratory experience during which time duties included the qualitative and quantitative analysis of suspected controlled drugs with experience including familiarization with: (1) chromatography, (2) spectrometry, (3) microscopy, (4) wet chemical methods, and (5) the origin and chemistry of controlled drugs may be certified for a period of two years. After the two year period in order to maintain certification the applicant will be subjected to the written examination process and proficiency testing.

Recertification

After the forensic drug chemist has been certified for a period of 5 years (?) there must be a process of recertification. Recertification may be attained by either of the following methods:

I. Accumulating 100 points by documentation of the following:

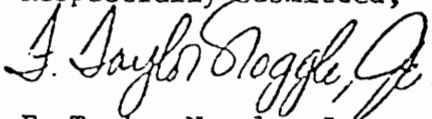
College Courses for Credit	20 points
Seminars and Workshops	15 points
Teaching	20 points
Publications (scientific)	20 points
Presentations at	
Scientific Meetings	10 points
Training	10 points
Meetings	5 points

or

II. Submitting to a written examination and three (3) proficiency tests.

Dr. Peterson agreed to circulate to all Peer Group members application forms from the other certifying boards.

The next meeting was scheduled for July 6-7, 1979, at the DEA Laboratory in Dallas, Texas, with an alternate date of July 13-14, 1979.

Respectfully submitted,

F. Taylor Noggle, Jr.
Secretary

FTN:jf/11/02

FIRST SEROLOGY PEER GROUP MEETING

April 28, 29, 1979

Sheraton Inn
Kenner, Louisiana

The meeting began with Bud Stuver bringing everyone up to date on the work of the Criminalistics Certification Study Committee (CCSC), including their meeting in Atlanta in February. Joe Peterson reported that the Firearms and Tool Marks Peer Group had met recently and that as a result of that meeting, it appears that this group will recommend withdrawing from the Criminalistics Certification Board and instead will set up their own independent board. This board would be independent of AFTE. This group apparently does not identify with criminalists.

There was a brief discussion about how the CCSC might influence the work of the peer groups. Neither Bud Stuver nor Joe Peterson felt that the CCSC would attempt to alter the decisions of the peer groups. Their role would be more related to the mechanics of implementing the decisions made by the peer groups.

Joe Peterson indicated that the target date for the presentation of the certification package to the criminalistics community is still the Fall meetings of the various regional associations. It was then decided that the next meeting of the Serology Peer Group would be held Thursday and Friday, June 21 and 22, 1979, in West Palm Beach, Florida. This will give the members of this group sufficient time to get back to their regional associations and report on, and get feedback on this first meeting and still keep within the time frame of the overall certification program.

By a unanimous vote of the members, Bud Stuver was elected Chairman of the Serology Peer Group Committee. Everyone felt that since Bud has been involved from the beginning with the CCSC, he is in the best position to guide the efforts of this peer group. Bud felt that his association with the CCSC might make it inappropriate for him to assume the chairman's job, but he was outvoted by the other members of the Committee. Don MacLaren agreed to serve as secretary for this meeting and Mark Stolorow said he would handle the secretary's job for the second meeting in June.

Bud began by referring to the "Guidelines for Peer Group Subcommittees" adopted by CCSC at their Atlanta meeting. This guide will serve as the agenda for this meeting. The four general areas to be discussed are:

- 1) Determine the type and scope of evidence examinations to be included in certification.
- 2) Determine the minimum qualifications the applicant must possess to be eligible to take the certification examination.
- 3) Determine the type of test(s) to be given and prepare a sample examination.
- 4) Determine the logistics of conducting and administering the proposed certification program.

Agenda Item 1 - Determine the type and scope of evidence examinations to be included in certification.

We began with a discussion of a definition of forensic serology. The definition arrived at is: Forensic serology is the science directed to the recognition, identification, individualization and evaluation of physiological material related to law - science matters.

A discussion then ensued as to which types of physiological material should be included under "evidence examinations to be included in certification." The following outline was developed:

- 1) Blood
 - a) Preliminary examination (microscopic and macroscopic, observation and pattern interpretation).
 - b) Identification (identification as blood and species determination, chemical and immunological).
 - c) Individualization (Genetic Marker analysis).
 - d) Other characterization (menstrual, sexing, rheumatoid arthritis factor, aging, etc.).

- 2) Other physiological material (semen, saliva, feces, etc.)
 - a) Preliminary examination.
 - b) Identification (chemical and immunological).
 - c) Individualization.
 - d) Other characterizations (sperm morphology, cytological examination, etc.).

There was then considerable discussion on what specific areas would be included in any testing program established. It was decided that the basis for determining this would be the responses to the serology questionnaire which was circulated nationally. It was decided that areas to be included would be those which had received a 50% or greater response under Column B on the questionnaire ("Techniques you feel an individual analyzing blood and other physiological fluids should be familiar with and aware of, i.e., could be expected to be questioned on in a written examination in a possible certification program"). Based on this criteria, the following topics are included:

- I. IDENTIFICATION OF BLOOD
 - A. Catalytic Tests
 - B. Crystal Tests
 - C. Anti-human Hemoglobin Sera
 - D. Electrophoretic Methods

- II. DETERMINATION OF SPECIES OF ORIGIN
(Immunological Methods)
- III. INDIVIDUALIZATION OF BLOOD
 - A. Red Cell Antigens
 - B. Isozymes
 - C. Serum Proteins
 - D. Miscellaneous
(Hemoglobin)
- IV. SEMEN IDENTIFICATION
 - A. Microscopical
 - B. Chemical
 - C. Immunological
 - D. Electrophoretic
- V. SEMEN OR SEMEN/VAGINAL FLUID MIXTURES
- VI. SALIVA IDENTIFICATION
- VII. URINE IDENTIFICATION
- VIII. MISCELLANEOUS

Agenda Item 2 - Determine the minimum qualifications the applicant must possess to be eligible to take the certification examination.

The first criteria discussed was education, and the group came up with four possible options which are to be taken back to the regional peer groups for discussion. Each of these options would be a minimum educational requirement.

- 1) Bachelors degree in a natural science or an appropriate related field from an accredited institution acceptable to the Board. Acceptable institutions are those accredited by Regional Accrediting Commissions recognized by the U. S. Office of Education and other institutions at the discretion of the Board.
- 2) Bachelors degree in a natural science or an appropriate related field or equivalent course work.
- 3) Bachelors degree in a natural science or an appropriate related field or equivalent course work with special consideration for exceptions by the Board until the end of an established grace period. After the expiration of the grace period, a Bachelors degree would be required.
- 4) Special waiver by the Board of any of the minimum qualifications.

It was pointed out by several members that based on the results of the serology questionnaire, 92% of those responding felt that a Bachelors degree (BA or BS) should be a minimum educational requirement.

It was decided with little discussion that court testimony experience not be required for certification. There was not a clear indication from the serology questionnaire as to what people thought about this subject.

The next topic of discussion was work experience. It was felt that the work experience required (including on-the-job training) should be a minimum of one year working principally in forensic serology and actively involved in working in the field of forensic serology at the time of application for certification. "Actively involved in working in the field of forensic serology" could include such activities as casework, teaching, research, and supervision.

There followed considerable discussion as to whether the minimum qualifications should include a submission by the applicant of a record of appropriate professional activities such as attendance at professional meetings, participation in courses and workshops, methods development, research, publications, teaching. If such activities are to be required, what is the minimum that is acceptable. This question is to be taken back to the regional peer groups for discussion. (See final page and paragraph of these minutes for further discussion of this point.)

It was agreed by everyone that a casework portfolio would not be a requirement.

The first day's meeting adjourned at 5:45 p.m.

Agenda Item 3 - Determine the type of tests to be given and prepare a sample examination.

The day's work began with a discussion on whether or not the area of serology should be broken down into two or more subareas (e.g., blood identification, species determination, ABO typing as one area and enzymes as second area) so that an individual could take an exam and become certified in part of serology. It was generally agreed that this was not a good idea. It was felt that administratively, this would be very complicated and also more costly. It was also felt that one of the goals of certification is to upgrade the capabilities of the individuals certified, and a single exam would provide a stimulus for increasing one's knowledge. It was thus decided that there would be one exam with everyone taking the same exam.

The subject of what type of tests to give was then discussed. It was felt that although an oral exam gives an indication of a person's ability to express himself (similar to courtroom situation), it is also impractical because of cost and difficulty in making sure that they are uniform from one individual to another.

It was the consensus that the test should consist of a written examination and a proficiency sample. This had also been recommended by the Southern Association and the CCSC.

There followed a discussion as to whether the receipt of a proficiency sample should be contingent on passing the written exam. It was agreed that this should be the case assuming that at least part of the written exam would be given in a controlled, monitored situation at designated times and locations--for example, to coincide with regional meetings. There was some discussion as to whether the proficiency portion of the exam should include some essay type questions - possibly in the form of hypothetical situations involving proficiency samples (simulate a case situation). This point will be referred to the regional organizations for input. There was brief discussion on the general questions which the CCSC has indicated would probably be included on all examinations. These questions would be in areas such as scientific methodology, evidence handling, basic microscopy, communication, legal aspects and court testimony, literature of criminalistics. The group felt that since these were topics common to all the criminalistics specialties, the questions covering these topics could be developed by the CCSC. Joe Peterson requested that the peer groups still submit questions appropriate to these general topics. He pointed out that at the moment there is no mechanism within the CCSC for handling this part of the exam in the present time frame of the certification program. The group will solicit questions on these general topics from their regional groups.

There was a brief discussion as to who will administer and proctor the exam within each regional organization. It was agreed that the member of the National Serology Peer Group from each regional association or his designee would handle this. It was also felt that national guidelines should be established on how the exam is to be administered.

There was a lengthy discussion on the format of written exams. It was eventually agreed that the written portion of the exam should be of an objective type such as multiple choice, matching, etc. It was felt that essay questions would be too difficult to grade objectively and uniformly. It was agreed that the objectives of an exam are to determine what an individual knows and how he can apply that knowledge to solving problems (e.g., a case). The written test will test what a person knows about a subject, but not necessarily how he can apply that knowledge to problems. It was agreed that all members of the Committee would go back to their regional groups and request that individuals submit questions to be considered for the exam (approximately twenty questions per person). The questions submitted can be of any form (objective, essay) as it was felt they could be modified to fit a particular format.

Bud Stuver stated that the Southern Association felt that the exam should be of an essay type. Joe Peterson mentioned that the Forensic Sciences Foundation had consulted with the Educational Testing Service and that this organization had strongly recommended that any test given be of an objective nature.

The point was made that even though the specific areas to be covered on any exam were determined by the national serology questionnaire, it would be assumed that in addition, everyone taking the exam would have a basic understanding of such areas as genetics, immunological principles, electrophoresis.

The group felt that it would be appropriate to assemble some sort of bibliography of relevant material which could be studied before taking the exam. It was felt that any list of study materials should be of such a length as to be digested in a reasonable length of time. It was suggested that the bibliography in the Southern Association Training Manual would probably be a good place to start. Joe Peterson said he would make copies of the appropriate section in the manual and send it to each Committee member. It was also agreed that we would seek bibliographic input from our regional groups.

Agenda Item 4 - Logistics of conducting and administering the certification program.

There was a brief review and discussion of the CCSC estimated costs of certification, but it was felt that it was too early in the process for us to evaluate costs. Joe Peterson said that cost estimates did assume a two-part exam; that is a written exam and a proficiency sample.

The subject of grandfathering was discussed next. Grandfathering, as the term has been used by the CCSC, refers to the option of allowing an individual who meets the minimum qualifications to become certified for a specified period of time without taking an examination. It was pointed out that this is not grandfathering in the strict sense of the word. Strictly speaking, grandfathering, as related to certification, would imply that an individual would be certified for life after meeting the minimum qualifications. He would never have to take an exam. A more appropriate term for what we are considering would be "temporary grandfathering" or maybe more accurately, a "waiver period" after which time the individual would have to take the exam in order to maintain his certification. What was finally proposed was a temporary grandfathering provision in which a person with five years of experience in forensic serology by a specified date would be eligible to be certified under grandfathering. The grandfathering period would last for three years. Sometime before the end of that three-year period, the individual would have to take the exam to maintain his certification. A person who wanted to be certified under grandfathering would have to apply within the first year it was offered. The grandfathering certification would expire three years from the date of notice of certification by the proposed ABC (American Board of Criminalistics).

George Sensabaugh said that the CAC was opposed to grandfathering and felt that everyone should have to take the exam in order to be certified for any period of time. It was mentioned that two very practical reasons for grandfathering are: 1) to develop broad-based acceptance of the certification program by the profession, and 2) simply to bring money into the certification program quickly so that there are funds available to set up the examination process. It was proposed that certification by exam would be for a five-year period at which time an individual would have to be recertified.

Regarding recertification, it was felt that simply retesting was not sufficient or desirable and that some sort of program should be established so that an individual had to show evidence of continued effort to keep up with the field (e.g., establish continuing education credits for participation in meetings, workshops, seminars, university courses, etc.).

A proposed calendar was established:

January 1, 1980 - Deadline for experience requirement for grandfathering.

Fall 1980 - First exams.

Early 1981 - First certification.

It was pointed out that an individual who was certified by temporary grandfathering would pay \$125.00 (\$75.00 application fee and \$50.00 exam fee), and would be required to take the examination within three years (at no additional charge).

Thus it would be necessary for an individual to accumulate a certain number of points to be recertified. It was felt that this requirement would encourage the regional associations to set up appropriate educational opportunities at their meetings.

There was a brief discussion of whether the certification application should require recommendations from two people. They would, in theory, attest to how long the applicant had been working in forensic serology, the percent of time he spent on it and whether the individual is currently involved with forensic serology. This question will be referred to the regional peer groups for discussion.

Respectfully submitted,

Donald C. MacLaren
Meeting Secretary