

APPENDIX B

1. Motion that the Forensic Science Oversight Board send a questionnaire to the State Police Crime Laboratory to answer the following questions for all sections of the crime lab:

a. Documenting and minimizing communication with/cognitive contamination by submitting agencies & outside parties:

- Does the Lab have any written protocols or standard operating procedures (SOPs) governing the scope, nature and content of communications technicians/ analysts have with submitting agencies?

Yes. The Quality Assurance Manuals have several references to information which shall be communicated to the customer. Some examples include:

- (ID 8149) 7.1.7: "...Additionally, any communications with the customer that are pertinent to the testing of evidence, evidential breath testing instruments or the review of the request shall be documented. The laboratory must communicate to the customer any time they deviate from the contract."
- (ID 8149) 7.8.1: "...Any factors that may have influenced the results of the testing, such as improper packaging or lab error, must be clearly communicated to the customer as soon as is practicable."
- What safeguards, if any, does the Lab already have in place to minimize contact between forensic examiners and submitting agencies (e.g. prosecutors, law enforcement personnel)?

Analysts are not prohibited from speaking directly with submitting agencies or prosecutors. However, the responsibility for the majority of the initial communication with these agencies is delegated to the Evidence Control Unit (ECU) and Case Management Unit (CMU).

- Evidence technicians receive evidence directly from law enforcement and enter submission information into the LIMS system.
- The Case Management Unit acts as the liaison for Forensic Biology (and to a lesser extent, Forensic Chemistry and Forensic Sworn Section) with the submitting agency and ADA, if needed, to clarify technical and administrative questions, obtain any additional documentation needed for processing and testing requests, and to distribute and process exhaustive authorization forms.
- Expedited analysis requests are submitted to CMU and must be forwarded to the respective Deputy Director(s) or Laboratory Director for review and approval. Analysts may not approve these requests without management approval.

- Per laboratory policy, results of laboratory analysis may not be disseminated to any party (e.g. prosecutors, submitting agencies, defense counsel, defense representative) until technical review of the results is complete.
- Does the Lab have any written protocols or standard operating procedures (SOPs) governing the scope, nature and content of communications technicians/analysts have with defense attorneys or defense experts?
There are no written procedures specifically addressing communication with defense attorneys/experts. However, in practice, the laboratory follows the same policies for documentation and dissemination of case information as detailed in the question above re: communication with law enforcement/prosecution.
- Does the Lab currently document all communications to/from law enforcement, prosecutors and/or defense team? If so, how is that information currently documented?
“Note to file” is defined in the LIMS manual (ID 4049). The laboratory’s policy for dissemination of information, referenced in the QA Manuals, requires that the laboratory document what laboratory information is provided to individuals associated with a particular case, for example, the submitting agency, prosecution and defense counsel.
- Does the Lab have procedures and protocols regarding analysts and technicians who respond to and process crime scenes in terms of whether or not they can be involved in subsequent forensic analyses of the items collected?
Crime scene responders are permitted to process evidence in the lab for cases in which they were the scene responder, if the evidence requires testing in their discipline.
- Ask that the Lab provide copies of any related protocols or SOPs and exemplar documentation of communications with outside parties/ agencies to FSOB prior to next meeting.
(ID 8149) (4935) (4049) (4139) (2687) (6725). See accompanying NTF.
- Based on your answers to the above questions, can you identify any budgetary or personnel implications?
Please refer to section K for comments relative to budgetary/personnel implications.

b. Documenting & minimizing exposure to task irrelevant information:

- How do individual units within the lab define task relevant information?
Information necessary to effectively and comprehensively conduct meaningful scientific examinations. What is task relevant will vary between units and may vary within the same unit from case to case. There is no comprehensive list of what is task relevant for each individual unit.
- What safeguards, if any, does the Lab already have in place to minimize exposure of analysts performing forensic analysis to task-irrelevant contextual information?

Please see the above description of the roles of ECU and CMU in the laboratory, which minimizes verbal communication of task irrelevant information directly to the analysts.

- How, if at all, are these safeguards memorialized by the Lab?

The Laboratory has protocols that specify the responsibilities of CMU, ECU, and laboratory management as they relate to evidence receipt, case activation, discovery, and expedited analysis requests. The Laboratory has proactively addressed safeguards against cognitive bias through both mandatory and voluntary continuing education initiatives for laboratory staff. Attendance at these trainings are documented in analysts' training and continuing education records.

Laboratory staff are also required to review ANAB's "Guiding principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel" annually as well as complete the Commonwealth of MA Conflict of Interest Training. Completion of all of these trainings are documented.

- Does the Lab use Linear Sequential Unmasking (LSU) to ensure that analysts examine & document their findings with respect to any crime scene evidence/ questioned samples *first*, before examining known samples (e.g. before exposing the analyst to information about the known samples)? **Yes.**
- Has the Lab taken steps to ensure that submission forms contain only task relevant information?

Yes. The Evidence Submission Form (ESF) has been revised over the years to remove unnecessary information and improve quality of necessary information. It is fully recognized that improvements can still be made. Submission process (and documentation) will be revised with the forthcoming transition to new LIMS provider expected early 2020. Additionally, SP295 (drug submission form) instructs agencies to omit any field testing information

- Ask that Lab provide copies of any and all written protocols or SOPs governing applicable safeguards, including any protocols or SOPs that relate to LSU. **DNA (2470, 3440 3461), TRAE (2886, 2897, 2898, 2896, 2886) PMT/TOX (3878) QA manuals (8149, 4935) (2877)**
- To the extent that an analyst is provided information to complete their analysis, is that documented in some way?

All work is dated in the case record to demonstrate when analysis of questioned (i.e. crime scene) sample was completed prior to comparative analysis of known sample In cases where knowns are processed before the questioned items (by a separate analyst), it is not recorded in the case file when the information is accessed by the analyst assigned to the questioned sample.

- Based on your answers to the above questions, can you identify any budgetary or personnel implications?

Please refer to section K for comments relative to budgetary/personnel implications.

c. Blind verification:

- How does the Lab currently conduct the “verification” process in forensic disciplines that require verification?

Impression evidence and latent prints: The Laboratory uses the ACE-V methodology. Currently all identifications are verified and the Laboratory is transitioning to verifying all conclusions.

Firearms: Currently all identifications are verified and the Laboratory is transitioning to verifying all conclusions. Please refer to FIS manual, ID 2877, rev. 4 , section 2.3

Additionally, all Laboratory sections conduct 100% technical review prior to the release of any analytical results.

- Does the Lab engage in “blind” verification?

No

- If so, are there written protocols or SOPs already in place to describe how the verification process is conducted, and the safeguards to ensure that blind verification occurs?

N/A

- Based on your answers to the above questions, can you identify any budgetary or personnel implications?

If blind verification was to be required 100% of the time, additional personnel would likely be needed to effectively maintain the volume of casework the laboratory receives.

d. Transparency:

- Does the Lab currently make all protocols and SOPs available in the public domain?

All technical protocols are available upon request. The Laboratory may deny requests for the Safety and Security procedures, as this may present a security risk for staff.

- Are all protocols and SOPs available online through the Lab’s website? If not, why not?

No. Protocols applicable to the Office of Alcohol Testing (OAT) are currently accessible through the Laboratory’s website, through the link to the eDiscovery portal. Select Laboratory-wide protocols are currently available on the website. It is the long-term goal of the Laboratory to eventually make all protocols available online. This will require additional resources to be responsible for the logistics of managing all archived and current versions of protocols.

- How does the Lab ensure the transparency of its governing protocols and procedures?

Any Laboratory protocol or procedure is available upon request, with the exception of Safety and Security procedures. All OAT protocols are

- available on E-Discovery.
- Based on your answers to the above questions, can you identify any budgetary or personnel implications?
Please refer to section K for comments relative to budgetary/personnel implications.

e. Discovery:

- What information is currently included in the Lab's standard discovery disclosures of forensic analysis performed by the Lab?
See Laboratory Materials Request Policy (2687) sections 3 and 4, and Discovery Materials Policy for the Office of Alcohol Testing (6725) section 4.7
- Does the Lab currently provide equal access to defense and prosecution to speak with examiners and obtain copies of bench notes generated in the course of forensic analysis?
All discovery materials are provided to the prosecution with the expectation that materials will be disseminated to the defense according to the prosecutor's obligations pursuant to the Massachusetts Rules of Criminal Procedure, Rule 14. The MSPCL has been directed by legal counsel to follow this avenue of dissemination.
- Does the standard discovery disclosure include provision of any and all communications to/from the Lab with submitting agencies (e.g. prosecutors and law enforcement agencies)?
The Laboratory standard discovery packet includes a copy of the case conversation log in LIMS. Additionally, this log is provided upon request by the Office of Alcohol Testing.
- Does the Lab have written protocols or SOPs governing discovery? If so, ask the Lab to provide to FSOB prior to next meeting.
Yes. See Laboratory Materials Request Policy (2687) and Discovery Materials Policy for the Office of Alcohol Testing (6725)
Based on your answers to the above questions, can you identify any budgetary or personnel implications?
Expansion of discovery materials provided in standard packet will necessitate additional staff in the Case Management Unit. As referenced above, creation of on-line access to protocols would necessitate additional funding.

f. Forensic reports:

- Do forensic reports generated by the Lab currently specify any weaknesses, limitations, scope, exposure to task-irrelevant information, error rates, and/or potential for error and bias?
These components are not necessarily included in the reports. While MSPCL agrees that identifying limitations or error potential is critical, the technical report may not be the most effective manner to

communicate all of the items indicated. Much of this information is more comprehensive than a simple one or two sentence summary and is therefore contained in the case record, protocols, validation studies etc., all of which are available by MSPCL for review by requesting parties.

Examples of when such information is contained in the report includes measurement uncertainty, which Tox, FIS, Drugs and OAT currently include on their reports, if impacting a statutory limit, at a minimum.

Additionally, under ANAB, the lab is required to note when information provided by a customer may impact the validity of results: (ID 8149 and 4935) "7.8.2.3 Information provided by a customer shall be clearly identified. In addition, a disclaimer shall be put on the report when the information is supplied by the customer and can affect the validity of results. Where the laboratory has not been responsible for the sampling stage (for example, the sample has been provided by the customer), it shall state in the report that the results apply to the sample as received."

Another reporting requirement (ID 8149 and 4935, 7.8.2.1 j) is to note the condition of an item where this may impact the validity of a result.

If so, please provide the FSOB with a copy of a report that illustrates how this information is documented and described in reports authored at the Lab.

[See accompanying documents for examples.](#)

Based on your answers to the above questions, can you identify any budgetary or personnel implications?

[Please refer to section K for comments relative to budgetary/personnel implications.](#)

g. Information sharing among analysts, and between the Lab and prosecution/submitting agencies.

- How does the Lab currently monitor/ control levels of information access to the LIMS system?
[Generally, access to case information is not restricted within the Laboratory.](#)
- Do all analysts and lab personnel have the ability to access the full range of case information that is included in the LIMS system?
[Generally, yes.](#)
- Do submitting agencies (law enforcement/ prosecution) have the ability to access LIMS?

Authorized prosecuting and law enforcement agencies have limited read-only access via the LAWS system (user manual ID 2775). This allows them to view: Basic case information (Agency, Agency #, Case officer, case type), approved reports (which are available for download) and the custody location of the items in that report, pending assignments, submissions of evidence to the lab (unsigned receipts are available for download), names of individuals related to the case and type (suspect, etc.), and the Item #, description, and current custody location for all items. ADAs can also send messages via an online form to the Case Management Unit with information or case disposition updates.

For the Office of Alcohol testing, the general public has access to all historical certifications/calibration data for all BT's via E-Discovery.

- Based on your answers to the above questions, can you identify any budgetary or personnel implications?

LIMS is the central location for storing case information. Information that may be task-irrelevant for one section, may be task-relevant for another. There are permission levels that restrict what information can be changed, but the majority of information is at a minimum, accessible in a read-only format to all personnel. The program is not designed to restrict discrete pieces of information from one analyst but not another. Withholding information from LIMS and storing it in another location that would not be accessible to certain analysts would make it more difficult to track all the information related to a case, and is counter to the purpose of a LIMS.

h. Whistleblower/ complaint procedures:

- Does the Lab have any written protocols or standard operating procedures governing whistleblower or other internal complaints?

Yes. In accordance with accreditation requirements, the laboratory has a procedure regarding complaints documented in the Quality Assurance Manual (ID 8149) and the Office of Alcohol Testing Quality Assurance Manual (ID 4935). In both manuals, this can be found in section 7.9.

The laboratory also has a requirement, referenced in the above manuals, that all staff members read the ANAB "Guiding Principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel" on an annual basis.

As a government entity, MSPCL is subject to the Commonwealth's whistleblower statutes. See G.L. ch. 149 s 185; G.L. ch. 12A s 14. .

- Based on your answers to the above question, can you identify any budgetary or personnel implications?

Specific personnel are designated to receive, review, and investigate any complaints. Please refer to section K for additional comments relative to budgetary/personnel implications.

i. Nonconformities, issues requiring corrective action, and unsuccessful proficiency testing

- What procedures and/or policies are in place to address various types of nonconformities, issues requiring corrective action, and unsuccessful proficiency testing?

The Laboratory has procedures to address nonconformities and corrective actions documented in the Quality Assurance Manual (ID 8149) and the Office of Alcohol Testing Quality Assurance Manual (ID 4935) (Sections 7.10 and 8.7 respectively). The procedure to address proficiency testing results which are not consistent with expected results (as determined by the vendor for externally provided proficiency tests or as determined by the preparer of the internal proficiency test) is documented in the laboratory's Proficiency Testing Program procedure (ID 3961) (Section 9).

- How are nonconformities, issues requiring corrective action, and unsuccessful proficiency testing addressed? [See above](#).
- How are investigations into nonconformities, issues requiring corrective action, and unsuccessful proficiency testing, as well as corrective actions or remedial actions documented?

Documentation is maintained by the Quality Assurance Management Section, either in hard copy or electronically. If the nonconforming work is associated with or affects a case, the information is contained in the case record.

- Which individuals or entities outside of the crime lab are notified regarding nonconformities, issues requiring corrective action, and unsuccessful proficiency testing, and under what circumstances (e.g. degrees of seriousness)?

The laboratory is responsible for ensuring that, if necessary after evaluation of nonconforming work, the customer is notified of the non-conforming work and for determining if items need to be returned to the laboratory for additional work. QA notes regarding nonconforming work associated with a particular case may be provided in discovery requests. If proficiency testing records for an analyst are requested during discovery, the complete proficiency test case record, including documentation regarding results inconsistent with expected results and any follow-up documentation is provided. Other documentation, including corrective action documentation, may be provided upon

request.

The accrediting body is notified of any proficiency tests yielding inconsistencies with the expected results. Additionally, proficiency tests with unexpected results would be documented in the laboratory and reviewed by the accrediting body during annual site visit/document review.

All non-conformances that affect the customer and corrective actions are available to the accrediting body annually for review during on site and off site surveillance visit.

Based on your answers to the above questions, can you identify any budgetary or personnel implications? Please refer to section K for additional comments relative to budgetary and personnel implications.

j. Structure

- What is the full SP organizational structure and where are you located? It was mentioned that DE is in another division, where are all the divisions? There are five Divisions within the Department of State Police. Division of Administrative Services, Division of Field Services, Division of Standards and Training, Division of Homeland Security and Preparedness, and the Division of Investigative Services. The Crime Lab is within the Division of Investigative Services. The Computer Forensics/DEMS is within the Division of Homeland Security and Preparedness. Each Division is Commanded by a Lt. Colonel. Each Division has Majors assigned command over multiple Units/ Sections.
- What is the overall process for submission, review, and determination of budget? How much input do you have in overall budget (e.g. what is requested, prioritization, review, approval).
Deputy Directors, Quality Manager and Section Managers submit individual unit budget requests to the Laboratory Director and Deputy Director of Administration and Finance. The requests are comprehensive and include consumables, equipment, additional personnel, training, technology needs, outsource testing costs, annual assessment costs, and service contracts. The requests are reviewed by the Director and Deputy Director(s) and priorities are established. The Lab Director and the Major assigned to the Crime Lab perform a final review and the budget is then submitted to General Headquarters for review.
- How responsive is the full chain of command to requests from the Lab Director?
MSP Executive Command Staff, including the Major assigned to the Crime lab is responsive to concerns brought forward by the Lab Director. The Crime Lab Director and Major meet regularly (currently weekly meetings are being held) with the Division of Investigative Services Lt. Colonel. Additionally, as of 2011, the Lab

Director is considered part of the Command Staff and invited to regular Command Staff meetings with the Colonel and Executive Command Staff.

- What are the specific command regulations directly effecting the laboratory?
As employees of MA State police, the sworn and civilian laboratory personnel must be aware of all policies and procedures of the Department.
- What input does the applicable Unions in the forensic process and personnel management? How do the Unions influence the laboratory procedures or analysis?
Union contracts directly affect factors such as hours worked, schedules etc. While the Laboratory and respective unions enjoy a productive working relationship, periodically, Union input has impacted the ability of the Laboratory management to fully implement specific technical policies (e.g. elimination DNA index). To date, Laboratory management is not authorized to require all personnel to participate in the elimination DNA index policy.

k. Lab Consideration

- Are you aware of any measures that you feel would be helpful in regards to concerns with cognitive contamination? *See below*
- Are there concerns about this request that in your view hamper the ability to effectively carry out the duties of the lab? *See below*
- What resources do you need/want in order to effectively carry out the duties of the lab?

The MSPCL fully recognizes and appreciates the need for cognitive bias awareness and education as well as the implementation of reasonable measures to prevent such bias from negatively impacting casework. As such, the MSPCL has been proactive in providing education to all staff as well as striving for continuous improvement of policies and procedures to address potential cognitive risk areas. Examples of changes made as a result of educational initiatives as well as areas identified as needing improvement can be provided during the audit.

However, it is imperative that a balance between the academic ideal for preventive measures and the practical considerations for implementing such measures without becoming prohibitive to successfully carrying out the responsibilities of the Laboratory be maintained. A comprehensive and thoughtful evaluation of the risk vs benefit of mandating specific measures is critical and must include dialogue and consideration from the forensic service providers as to the impact such measures would have, both positive or negative, on casework quality and timely completion.

It is quite likely that additional resources (e.g., personnel, space,

technology) would be needed to implement some of the potential measures for cognitive bias prevention. Specific needs can be further articulated as the audit progresses and areas for potential improvement are identified by the FSOB.