FACILITATOR EVALUATION FORM

Training: T54-05 Internal Calibration and Traceability **Date:** June 15, 2005

Facilitator(s): Ned Gravel **Location**: Delta Barrington, Halifax

Item	**Met Participant Needs?**				
	1 No	2	3 OK	4	5 Yes
Course Objectives:	*√ as appropriate below*				
Were you given the opportunity to help define them?	1	0	1	4	9
Were they well defined?	0	0	3	10	2
Were they achieved?	0	1	9	5	0
Course Content:					
Was the material appropriate?	0	1	5	8	1
Complexity (1=too complex or too simple←→Perfect=5)	0	3	8	4	0
Was the material clear to you?	0	4	3	7	1
Volume (1=too much or not enough←→Perfect=5)	1	5	5	4	0
Did the handouts fit with this training - did they help?	0	1	5	7	2
Facilitator Methods:					
Did the facilitator allow sufficient discussion?	0	0	4	5	6
Did the facilitator encourage participation?	0	0	1	6	8
Did the facilitator help bring out new group ideas?	0	0	6	6	3
Did the facilitator help close out discussions?	0	0	9	4	2
Would you accept this facilitator again?	0	0	3	6	6
Catering and Facility:					
Was the seminar facility appropriate for the course?	0	0	2	4	9
Was the lunch and breaks service acceptable?	0	0	3	2	10

Comment/Concern	**Response**
• It would be useful to read the material before the course • Send out course material ahead of time • Having the course material ahead of time would be beneficial. • Info provided beforehand would be nice • Books should be distributed ahead of time	This is a good idea and will be instituted for follow-on editions of this course.
• The math is a bit of a struggle for people like me who don't use it everyday	Will spend more time on the math and this course will now be delivered over the course of two days.
• Uncertainty course should be a prerequisite • Some understanding of uncertainty is needed, or would be helpful.	Will ensure that potential participants understand the requirement for a knowledge of uncertainty prior to this course.

Comment/Concern	Response
• The exercise of calibrating the balances needs to be more organized such that less time is spent taking the readings and more time is spent manipulating the data to determine the uncertainty. Overall, this example calibration was very useful but took too much time. • Hands on part especially balances seems too long and unclear of final conclusions • Less time could be spent on "hands-on", i.e. instead of everyone weighing, have one or two people. • Could we have skipped the practical session with the balances and gone straight to the calculation. We all know how to use a balance. • Too long, lost interest on Section 5 and discussion afterward.	This is now possible, given that participants are less concerned about the operation of the instrument and more about the manipulation of the resulting data.
• Excel is good in that it speeds up the process, but I would have found it more helpful to work through the entire exercise manually. • Not everyone is at the same level and I found the volume calibration/pipette exercise frustrating.	Will develop an Excel-based model for use by participants, but the exercises in class will first do the calculations by hand, then by Excel.
• The calculators provided were not very useful as they did not have required decimal places. Perhaps you should suggest to participants to bring their own. • Bring your own calculator	Will require participants to bring calculators with appropriate capability
• One thermometer used was not very readable due to fading of grading lines. Check equipment before course to save time carrying out exercises.	All equipments were donated by resident laboratories. Will ask, but cannot guarantee.
• At times technical jargon used by facilitator is just excess unnecessary information and was found to be confusing	Will attempt to use less technical jargon
• I left feeling that I really need to go through all the material again to sort and clarify it in my mind.	CAEAL is ready to provide continuing assistance after the course.

- There were some comments re: the value of getting external balance calibration and maintenance that I agree with, but I also think this course is extremely valuable for internal calibration for thermometers and pipettes and would save a number of labs a considerable amount of money, time and duplication by calibrating internally. This would allow the labs

to also calibrate equipment as often as needed (i.e. after cleaning, mishandling, out of tolerance, etc), not just at a set schedule

- This course was valuable – coming from a small lab this will keep our costs reasonable (i.e. save money). Also, our balances require recalibration at least 2 X (verification fails tolerances occasionally). Also saves time and money knowing how to calibrate properly.
- I found that having previously completed CAEAL's course in uncertainty was very helpful for this material.
- Gain good distinction between calibration requirement and verification of working equipment
- All the information helps and with the course material and some time, things will surely get clearer!
- Overall I really enjoyed the course