

**Meeting Summary
Steering Committee
NSF International Biosafety Cabinet Field Certifier Accreditation Program
Providence, Rhode Island
October 13, 2015**

Maren Roush (NSF International) read NSF's Anti-Trust Statement and initiated the meeting.

Steve Williams (NSF International) attended the meeting via phone conference. The rest of the meeting participants, both Steering Committee members and other interested parties, are noted in the sign-in sheet.

Decontamination Test Development

Ms. Roush read an email update from Ken Barkley (BIOLAB) regarding work that Bob Jones (formerly with Baker Company, current NSF Proctor) and he completed in March in order to develop a decontamination test for the practical examination. The email explained that they had met at The Eagleson Institute to develop, discuss and perform a mock decontamination test. The test they drafted consisted of answering a series of questions pertaining to the equipment, procedures, safety equipment used, and chemical preparations for decontamination. Playing the part of the test candidate, Mr. Barkley sealed a biosafety cabinet and set up the necessary (mock) materials for a formaldehyde decontamination inside of the cabinet. He also ran the blower for 5 minutes to ensure that the set up would hold pressure. Misters Jones and Barkley discussed the overall test procedure and determined it could be administered in a two hour time slot. They are in the process of developing questions pertaining to both formaldehyde and chlorine dioxide for the written evaluation. Their goal is to have all questions, test worksheets and the written procedure ready for discussion at the next Steering Committee meeting in Las Vegas, Nevada, in April 2016.

The membership of the task group in charge of developing this test method is:

- Ken Barkley (chairperson)
- Bob Jones
- Dennis Miller
- Kyle Mulder
- Chandler Papas
- Bill Peters
- Dave Phillips
- Todd Urton
- Z Ciupek

BSC Data Plates:

This agenda item was added to the meeting at the request of the Standard 49 Task Group on Data Plates. The task group requested feedback from the Steering Committee on the following issues: data plate location (top, front, etc. of BSC), content (test grids, multiple sash heights, info about replacement parts, etc.), and layout.

The Steering Committee agreed that it can be hard to put all of the data plate information on the top front of cabinet due to front panels being removable. The sides of the BSC are not a good option, either, since there are many installations where the sides of the BSCs are not accessible. Chandler Papas (C-Scan Technologies) explained that the information critical to the field certifier includes: manufacturer name, contact information, model number, electrical requirements, serial number and year, and this list of critical components was supported by those present at the meeting.

If additional information is required, the group suggested allowing multiple data plates / labels. The additional information could be placed on a second label/plate in a less visible location. The two types of data plates discussed were – 1) a “service data plate” including the critical information. It should be visible (not just accessible) on the front of the BSC, without removing panels; and 2) an “informational data plate” to include test grids, required airflows, replacement parts, etc. The informational data plate should be accessible from the front of the cabinet (using a ladder to access the label, if necessary, did not concern the steering committee members present).

Data Sheets

The task group on data sheets did not have much to report at this meeting, but will continue to work towards revising the data sheets used during practical examinations (and also available for download via www.nsf.org):

Cary Binder
Dennis Miller
Dave Phillips (chairperson)
Bill Sage
Todd Urton

Annex E of Standard 49:

Dr. Richard Gilpin ([Richard W. Gilpin, Ph.D., Limited](#)) had forwarded the Steering Committee a request for input on several issues, to assist a task group under the Joint Committee on Standard 49 charged with revising Annex E. Dr. Gilpin explained that this task group was working on a version of Annex E to be released to the public, and was looking for input from field certifiers in particular on the following topics (see italicized issues):

E.4.2.2 Clearances – Is 6, 12 or greater inches best for field certification? Are these distances commonly found in the field?

BSCs not connected to an exhaust system should have at least 12 in (30 cm) clearance from the filter face and any overhead obstructions when the cabinet is in its final operating position, to allow for testing of the Exhaust HEPA/ULPA filter. At least 12 in (30 cm) clearance is also required if the use of a thermal anemometer exhaust velocity measurement is needed when calculating cabinet inflow velocity. A clearance of at least 6 in (15 cm) should be maintained on both sides of the cabinet, as well as 12 in (30 cm) behind the unit, to allow for service operations if necessary.

The Steering Committee agreed in general that having more room to move around when working in and certifying biosafety cabinets is preferable.

Dr. Stephen Dahl (Johns Hopkins University) referenced the National Institutes of Health (NIH) Design Requirements Manual for Biomedical Laboratories and Animal Research Facilities (DRM), which must be followed if using federal funding. This document (which is downloadable at <http://orf.od.nih.gov/PoliciesAndGuidelines/BiomedicalandAnimalResearchFacilitiesDesignPoliciesandGuidelines/Pages/DesignRequirementsManualPDF.aspx>) has very specific requirements with respect to BSC placement. Dr. Dahl commented that he would like to see scientific data supporting these or any other design specifications. At Johns Hopkins, they require that side-by-side BSCs have enough space between them that an arm can fit between cabinets (about 8” inches or slightly more). Bill Peters (NuAire) explained that he had written a white paper on this issue several years ago and found that, when positioned in a way that people could work in them, BSCs did not interfere with one another. It was also explained that The Baker Company performed a back pressure study in the past that provided hard data supporting a minimum of 3 inches of clear space above exhaust filters to prevent back pressure.

The group discussed the issue in detail and recommended that Annex E be revised to explain that some of the minimum clearances for BSCs were established for the ease of field certifiers’ access to critical components, and not necessarily because the BSCs won’t function properly if the minimum clearances are not met. There was support for a minimum clearance of 6 inches for HEPA filter scanning and 12 inches for measuring airflow with an anemometer, again, from the standpoint of field certification.

Work area decontamination in pharmaceutical and cleanroom applications involving toxic chemicals. What chemicals (such as alcohol) are clients asking field certifiers to use for surface decontamination?

Surface decontamination should have already been performed prior to the arrival of the field certifier. Sometimes, clients request that certifiers clean their equipment/supplies with 70% alcohol.

How many Type A1’s are seen in the field? Do they have a face velocity of 75 or 100 lfpm? Do they all have positive pressure contaminated plenums?

Dennis Miller (Associated Air Balance and Certification, Inc.) said that his clients just replaced their last A1 cabinets (i.e. the “old definition of A1”) this past year. He extended his thanks to those manufacturers present at the meeting who no longer support these antiquated technologies.

Allan Bier (Technical Safety Services) responded after the Steering Committee meeting; upon reviewing his company’s customer inventory, he found that A1 cabinets were 4.6% of the active inventory. He suggested that this slightly higher percentage of type A1 BSCs among his company’s customers (higher than anticipated by NSF) could be due to the prevalence of academic institutions, which typically use equipment until replacement parts are no longer available.

Review of Program Policies:

Ms. Roush asked for guidance from the Steering Committee regarding appropriate follow up actions to take if Accredited field certifiers' test equipment is determined to be out of tolerance as part of the annual equipment review.

The Steering Committee recommended giving field certifiers 30 days to comply if out of spec calibration records are submitted. If these non-conformances are not resolved within 30 days, Accreditation should be dropped. Dr. Dahl moved to add language re. the above to the Accreditation Program policies. This motion was seconded by Dr. Eduardo Gomez-Saladin (CDC) and was unanimously approved. The Steering Committee recommended resolving the actual language via email.

Committee Membership:

Dr. Dahl made a motion to approve any applications for regulatory members immediately, due to the need for regulatory representation on the Steering Committee, and have the membership committee review any other outstanding applicants. This motion was seconded and approved. John Balog (FDA) and Joe Tanelli (Public Health Agency of Canada) are new members of the NSF Steering Committee for the Accreditation Program for Biosafety Cabinet Field Certifiers.

There was discussion re. keeping NSF Practical Examination Proctors as advisory, but non-voting, members of the Steering Committee, due to the potential for conflict of interest (perceived or real).