

MOST COMMON CHALLENGES FOR FOOD TESTING LABORATORIES IDENTIFIED DURING THE IAS ACCREDITATION PROCESS

MOHAN SABARATNAM, VP, GLOBAL ACCREDITATIONS AND QUALITY, IAS; ALBERTO HERRERA, SENIOR MANAGER, ACCREDITATIONS/AMERICAS, IAS; DR. VIKRAM HARIDASS, DEPARTMENT OF EPIDEMIOLOGY, SCHOOL OF MEDICINE, UNIVERSITY OF CALIFORNIA, IRVINE

Abstract

This paper will outline the most common challenges food testing laboratories face during the accreditation process. Accreditation is the independent evaluation of conformity assessment bodies (Testing laboratories) against recognized standards to carry out specific activities to ensure their impartiality and technical competence.

Introduction

Through regular, scheduled on-site assessments, IAS assessors ensure that compliance is maintained to ISO/IEC 17025 . If any deviations from the standard's requirements are noted during these assessments, IAS assessors will categorize these findings as one of two types: Corrective Action Request (CAR) or Concern. CARs and Concerns require a mandatory response to IAS regarding actions taken by the laboratory; additionally, CARs require a root cause analysis and submission of objective evidence substantiating the action taken for the CAR to be successfully closed. The actions taken by the laboratory will be confirmed at the next scheduled assessment or during a follow-up assessment if so, required by the IAS Program Manager.

Objectives

This study will examine data collected from 50 food testing laboratories, from various countries worldwide, accredited by IAS against the requirements of the international standard ISO/IEC 17025: "General requirements for the competence of testing and calibration laboratories." Specifically, CARs and Concerns issued during IAS assessments were analyzed.

Case Development and Application

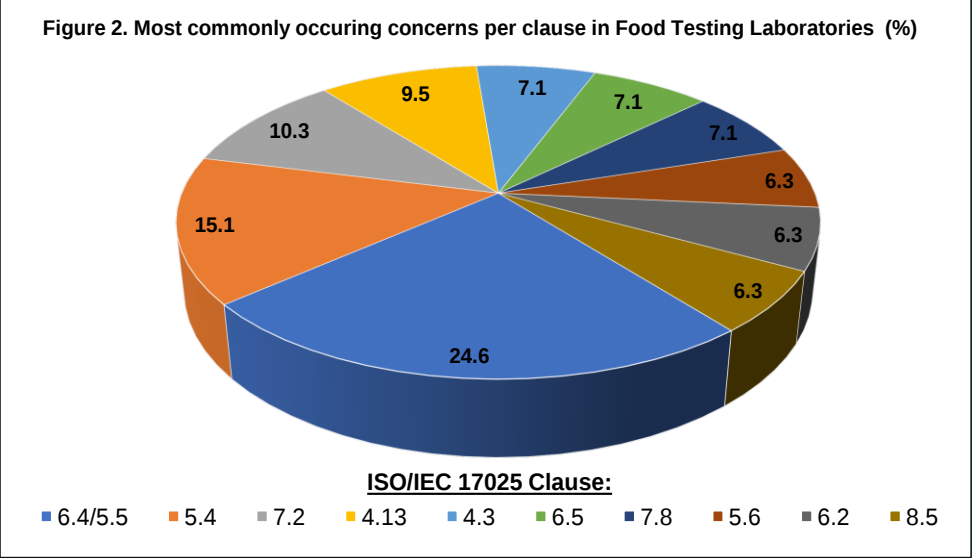
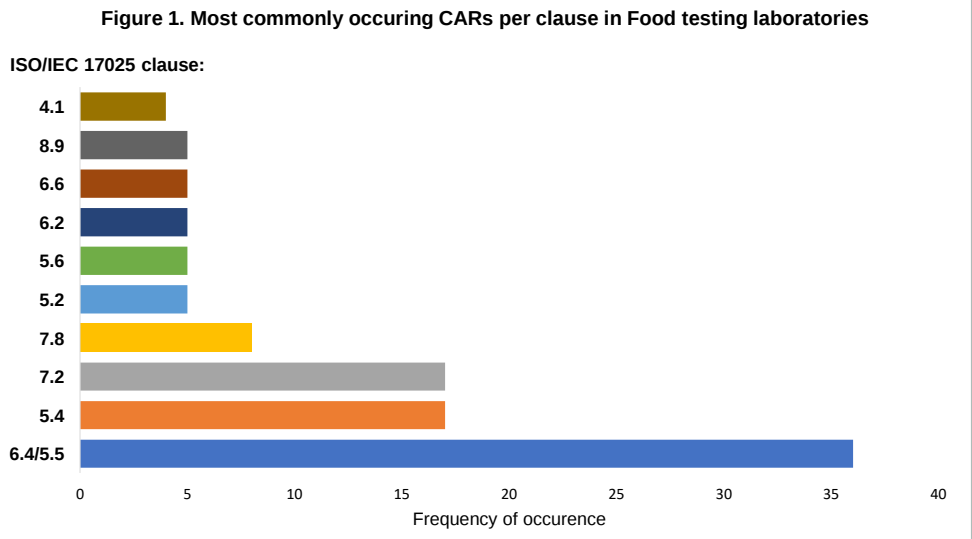
- ~50 IAS assessment reports resulting in >411 findings will be reviewed.
- IAS Reports recorded from the most recent 2-year assessment accreditation cycles of these food laboratories.
- The findings contained within these reports will be analyzed for repeatability trends.

Table 1. Ten most commonly occurring corrective action requests per ISO/IEC 17025 clauses during the accreditation process food testing laboratories	
ISO/IEC 17025 clause category	Proportion of Occurrence (%)
6.4/5.5: Equipment	33.6
5.4: Test and calibration methods and method validation	15.9
7.2: Selection, verification and validation of methods	15.9
7.8: Reporting of results	7.5
5.2: Personnel	4.7
5.6: Measurement traceability	4.7
6.2: Personnel	4.7
6.6: Externally provided products and services	4.7
8.9: Management reviews	4.7
4.1: Impartiality	3.7

*Equipment non-conformances defined using ISO/IEC Standards from 2005 and 2017.

Table 2. Ten most commonly occurring concerns per ISO/IEC 17025 clauses during the accreditation process of food testing laboratories	
ISO/IEC 17025 clause category	Frequency of Occurrence
6.4/5.5: Equipment*	31
5.4: Test and calibration methods and method validation	19
7.2: Selection, Verification, and validation of methods	13
4.13: Control of records	12
4.3: Document control	9
6.5: Metrological traceability	9
7.8: Reporting of results	9
5.6: Measurement traceability	8
6.2: Personnel	8
8.5: Actions to address risks and opportunities	8

*Equipment non-conformances defined using ISO/IEC Standards from 2005 and 2017.



Results and discussion

- The top 5 most frequent findings relating to the sub clauses of the ISO/IEC 17025 standard in each category (CAR and Concern) will be identified and analyzed. Approximately 50 customer submitted corrective action plans submitted to satisfy more than 411 findings will be reviewed.
- The most widely applicable responses will be selected for further analysis, trending and future presentation.
- The top clauses on which most of the CARs (or non-conformities) as part of the study will be cited:
 - ISO/IEC 17025 Clause #s and description (i.e., 5.5-Equipment, 4.15-Management reviews, etc.)

Conclusions

- A list of the identified non-conformities and corresponding critical areas will be presented;
- The relationship to the specific ISO/IEC 17025 requirements in relation to the findings will be discussed;
- Trending and Suggestions for best practices will be drawn from the data analyzed.



About IAS

IAS is a nonprofit, public-benefit corporation that has been providing accreditation services since 1975. It is a subsidiary of the International Code Council (ICC), a professional membership association that develops the construction codes and standards used by most municipalities within the United States. IAS accredits a wide range of companies and organizations including governmental entities, commercial businesses, and professional associations. IAS accreditation programs are based on recognized national and international standards that ensure domestic and/or global acceptance of its accreditations. As one of the leading accreditation bodies in the United States, IAS is a recognized accreditation body for many domestic programs in the USA and a full signatory to the three primary international organizations (IAF, ILAC, APAC) that form a unified system for evaluating and recognizing competent accreditation bodies worldwide.