

General requirements for Trainers and Training Programs offering Renewable Energy, Energy Efficiency, or Distributed Generation Training

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ISPQ DIS 01021

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Forward

The Institute for Sustainable Power, Inc. (ISP) is a non-national, non-profit organization incorporated to coordinate, develop, and maintain international standards for the evaluation and qualification of trainers, training programs, and training evaluators/auditors for renewable energy, energy efficiency, and distributed generation workforce development, and standards for job competency content. The work of preparing International Standards is normally carried out through ISP Quality (ISPQ) technical committees. Subject matter experts from countries participating in the ISPQ framework process have the right to participate on the relevant committees. International organizations, governmental and non-governmental, in liaison with ISP, may also take part in the work.

The main task of the technical committees is to prepare International Standards. Draft International Standards are proposed and developed by the technical committees; they are circulated for public comment, after which they are voted on by the voting members of the relevant technical committee. Publication as an International Standard requires approval by at least 75% of the eligible voting members of the relevant technical committee.

NOTE: it is possible that some elements of this Draft International Standard may be the subject of patent rights. ISP shall not be held responsible for identifying any or all such patent rights.

Draft International Standard ISPQ DIS 01021 was prepared by ISP/ASC WG1.

This is the first edition of ISPQ DIS 01021.

Introduction

The International Standard has been drawn up with the objective of achieving and promoting a globally accepted benchmark for individuals and organizations seeking qualification of their training competence, resources, and capabilities. Qualification, through accreditation or certification, is one means for providing assurance that the training is capable and competent. Confidence in the qualification scheme is achieved by means of a globally accepted process of assessment, subsequent surveillance, and periodic re-assessment of the quality and competency of the qualified training.

However, it is necessary to distinguish between situations where qualification schemes for training are justified and situations where other forms of qualification are more appropriate. The development of new qualification schemes for training, in response to the ever-increasing pace of technological innovation and growing specialization of work skills, may compensate for variations in education and training and thus facilitate the global workforce development. Generic forms of qualification may still be the necessary form of qualification in situations where public services, official, or governmental operations are concerned.

In contrast to other types of conformity assessment bodies, such as management system certification / registration bodies, the primary function of the qualified body is to conduct training, which uses objective criteria for establishing curriculum content and training practices to ensure knowledge, skills, and abilities competencies. It is anticipated that such training, if well planned and structured by the training program, substantially can serve to ensure the quality and impartiality of operations and reduce the risk of a conflict of interest in the training.

This International Standard should be the basis for the recognition of relevant training schemes in order to facilitate their acceptance on the national and international levels. Only the harmonization of the system for developing and maintaining the qualification scheme for training can establish the environment for mutual recognition of the global workforce preparation.

This International Standard specifies requirements that ensure that training bodies operate in a consistent, comparable, and reliable manner. The requirements in the Standard have been written to be considered as general requirements for training and trainers and therefore may have to be supplemented in response to additional demonstrated market needs/requirements/expectations (i.e., changes in the technology, practices, codes, workforce demand, or national requirements) or specific government requirements (i.e., protection of the public).

General requirements for Trainers and Training Programs offering Renewable Energy, Energy Efficiency, or Distributed Generation Training

1 Scope

This International Standard specifies requirements for competency, quality systems, resources, and qualification of a curriculum against which trainers and training programs will be evaluated.

NOTE: The curriculum evaluation is based the curriculum meeting the knowledge and skills competencies defined in the Task Analysis accepted in the country in which the candidate is operating. If the country has no accepted Task Analysis for the level of training being evaluated, the ISPQ core Task Analysis will be the basis for the evaluation.

2 Normative References

The following normative documents contain provisions that, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For updated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/IEC Guide 2, Standardization and related activities – General Vocabulary

ISO 9001, Quality Management Systems – Fundamentals and vocabulary

Note: ISO and IEC are trade-marks of the International Organization for Standards and the International Electrotechnical Commission, respectively, and the referenced documents are copyrighted by the ISO.

3 Terms and definitions

For the purposes of this international Standard, the terms and definitions given in ISO/IEC Guide 2, ISO 9000, and the following apply:

3.1

accreditation

the qualification of a program or institution by an objective evaluating body as having met the requirements of a set of consensus standards

3.2

accreditation process

process by which an evaluating body certifies that a program or institution fulfills specific competence, resource, and/or capability requirements

3.3

applicant

person or program applying to the evaluating body to obtain a certificate of competence or validation for a specific area of training

3.4

auditor

person with relevant technical and personal qualifications, representing the evaluating body, competent to assess a candidate against the relevant standard

3.5

candidate

applicant qualified to commence an evaluation and validation process

3.6

certificate of competence

document issued by an evaluating body that confirms that a named person or program is competent to perform the specified services

3.7

certification

the qualification of an individual by an objective evaluating body as having met the requirements of a set of consensus standards

3.8

certification process

process by which an evaluating body certifies that an individual fulfills specific competence, resource, and/or capability requirements

3.9

qualification

determination that an applicant has fulfilled specific requirements to participate in the accreditation/certification/qualification process

3.10

task analysis

the published, publicly available document defining the set of knowledge and skills competencies required of a practitioner in the workforce to safely and competently carry out the specific job functions covered in the analysis

4 Requirements for trainers and training programs

4.1 Trainer or training program

4.1.1 The policies, procedures, and practices of the trainer or training program and their administration shall be non-discriminatory and shall comply with all applicable regulations and statutory requirements. The trainer or training program shall not use procedures to impede or inhibit access to training except as provided for in this standard.

4.1.2 The trainer or training program shall define a syllabus and curriculum, with appropriate prerequisites, which ensure that participating students will receive sufficient instruction and practice to meet the knowledge and skills competency requirements of the relevant accepted Task Analysis

4.1.3 The trainer or training program shall have and maintain sufficient and sufficiently accessible facilities, including lecture, class, and laboratory, in which to carry out the training in a manner that is safe, secure, and appropriately provisioned so as not to impede the learning process of students. This requirement includes facilities with sufficient ventilation, lighting, work surfaces, presentation materials, and access to lavatory facilities

4.1.4 The trainer or training program shall have and maintain sufficient resources to provide students with a safe, appropriate, and complete training opportunity for the covered

curriculum. This requirement includes appropriate personal protective equipment, safety materials and equipment, training hardware, tools, library and research materials, job placement resources, and linkages with the subject industry.

4.1.5 The trainer or training program shall sign a code of ethics holding them/it to appropriate standards of conduct and documenting the signer's agreement to avoid conflicts of interest, both real and perceived, and to maintain ethical practices

4.2 Organizational Structure

4.2.1 The trainer or training program shall be structured, and have appropriate policies, procedures, and practices, so as to give confidence to interested parties in its competence, impartiality, and integrity

4.2.2 In particular, the trainer or training program shall

a) identify the top management (a committee, group, or person) that shall have overall responsibility for

- 1) defining the prerequisites for participating in the training,
- 2) ensuring that the syllabus and curriculum represent appropriate coverage of the competencies of the relevant Task Analysis,
- 3) the formulation and implementation of policies and procedures relating to the operation of the training,
- 4) the finances of the training program,
- 5) delegation of authority to any committees or individuals to undertake defined activities on its behalf

b) have documents establishing it as a legal entity or part of a legal entity

4.2.3 The trainer or training program shall have a documented structure that safeguards impartiality; this structure shall enable the participation of interested and relevant parties significantly concerned with the workforce outcomes of the training

4.2.4 The trainer or training program shall

- a) have the financial resources necessary for the operation of the training services and to cover associated liabilities
- b) have policies and procedures that ensure safety and safe practices in the training and encourage proper and safe practice in the workforce
- c) ensure that the activities of individuals or bodies related to it do not compromise the confidentiality, objectivity, and impartiality of the training

4.2.5 The trainer or training program shall define policies and procedures for the resolution of complaints, disputes, and appeals received from applicants, students and their employers, customers and clients, and other parties about the training process, training content, and the performance of trained persons

4.2.6 The trainer or training program shall employ enough people with the necessary education, training, technical knowledge, and experience to perform the training and training administration and support functions relating to the type, range, and volume of work performed under a responsible top management.

4.3 Development and maintenance of the curriculum

4.3.1 The trainer or training program shall define the methods and mechanisms to be used to ensure that the syllabus, curriculum, facilities, and resources meet the requirements of the relevant Task Analysis and shall establish appropriate policies and procedures for the initial development and continued maintenance of these methods and mechanisms

4.4 Management system

4.4.1 The trainer or the training program's top management shall define and document its policy for quality, including objectives for quality and its commitment to quality. The top management shall ensure that this policy is understood and implemented at all levels of the organization.

4.4.2 The trainer or training program shall operate a documented management system that covers all the requirements of this International Standard and ensures the effective application of these requirements.

Note: A documented management system based on the ISO 9001:2000 model that addresses the requirements of this International Standard would be one method of satisfying this requirement. Also, the details of an accreditation of the party or its parent organization by a recognized third party will suffice to meet the requirements of sections 4.4.1, 4.4.2, and 4.4.4 of this standard.

4.4.3 The trainer or training program shall designate a person with direct access to its top management level who, irrespective of other responsibilities, shall have defined authority

- a) to ensure that a management system is established and maintained in accordance with this International Standard, and
- b) to report on the performance of the management system to the top management of the training program for review and as a basis for improvement of the management system

4.4.4 The trainer or training program shall have an internal audit and management review system in place including provisions for continual improvement, corrective, and preventive actions

4.5 Outsourcing

4.5.1 When a trainer or training program decides to outsource work related to training to an external body or person, a properly documented agreement covering the arrangement, including confidentiality and prevention of a conflict of interest, shall be drawn up.

4.5.2 The trainer or training program shall

- a) take and maintain full responsibility for all outsourced work
- b) ensure that the subcontractor is competent and complies with the applicable provision of this standard, including a management system as described in section 4 (or documentation as to why the subcontractor does not meet these requirements), and the competence requirements
- c) maintain a list of its suppliers and documented procedures for assessing and monitoring their competence and the outsourced work

4.6 Records

4.6.1 The trainer or training program shall maintain a record system appropriate to its particular circumstances and to comply with regulations. The records shall demonstrate that the administrative requirements have been fulfilled effectively, particularly with respect to application forms, evaluation reports, liability waivers and releases, and other documents relating to student participation in the training

4.6.2 The records shall be identified, managed, and disposed of in such a way as to ensure the integrity of the process and the confidentiality of the information. The records shall be kept for an appropriate period of time to demonstrate continued confidence for at least one full year, or as required by other arrangements, contractual, legal, or other obligations

4.7 Confidentiality

4.7.1 The trainer or training program shall have adequate arrangements consistent with the applicable regulations and statutory requirements (laws) to safeguard confidentiality of the information obtained in the course of its training activities at all levels of its organization, including committees and external bodies or individuals acting on its behalf

4.7.2 Except as required in this International Standard or by regulations and statutory requirements, information gained in the course of training activities about a particular student, subcontractor, or other participant shall not be disclosed to a third party without the written consent of the subject person. When the trainer or training program is required by regulations and statutory requirements to release information to a third party, the student, subcontractor, or other participant shall be informed beforehand what information will be provided

5 Requirements for trainer or training program personnel

5.1 General

5.1.1 In order to ensure that the training process is carried out effectively and uniformly, the competence requirements for personnel involved in the entire process shall be defined by the trainer or training program and approved by the responsible committee

5.1.2 The trainer or training program shall require its personnel (internal or external) to sign a document by which they commit themselves to comply with the rules defined by the trainer or training program, including those relating to ethics, confidentiality, and those relating to conflicts of interest

5.1.3 Clearly documented instructions shall be available to the personnel describing their duties and responsibilities. These instructions shall be kept current. All personnel involved in any aspect of the training activities shall possess appropriate educational qualifications experience, and technical expertise to satisfy defined competence criteria for the tasks identified. They shall be trained for their specific responsibilities within the training program and made aware of the significance of the training offered.

5.1.4 The trainer or training program shall establish and maintain current documentation on the relevant qualification, training, and experience of each individual. The information shall be accessible to the individual(s) concerned and shall include the following:

- a) name
- b) organization affiliation and position held
- c) educational qualification and professional status
- d) experience and training in the relevant field of the training's area of competence
- e) the specific responsibilities and obligations of the individual within the training program
- f) performance appraisals
- g) date of the most recent updating of the records

5.2 Requirements for trainers

5.2.1 Trainers shall meet the requirements of the training program based on applicable standards and other relevant documents

When selecting trainers for a specific course, the training program shall ensure that the competence brought to each assignment is sufficient. Trainers shall

- a) be familiar with the relevant training syllabus and curriculum
- b) have a thorough knowledge of the relevant training methods and instruction documents
- c) have appropriate competence in the field covered in the training

- d) be able to communicate effectively both in writing and orally (through an interpreter, if necessary) in the language of the training, and
- e) make known any affiliation or other link that, in perception or in fact, could represent a specific interest or bias in the training program (e.g., commercial affiliation with a particular manufacturer, etc.)

6 Training representations, information requirements, and evaluations

6.1 Descriptive materials

6.1.1 The trainer or training program shall provide prospective students with a current detailed description of the training, training content, and training process (including fees), and reference to the documents containing the requirements of the relevant Task Analysis

6.1.2 The trainer or training program shall require the completion of an application, signed by the applying student, which contains

- a) the scope of the training program
- b) a statement that the applying student agrees to comply with the requirements and directions of the training program and to supply any information relevant to safety and medical issues
- c) details of relevant qualifications (e.g., education, work experience), confirmed and supported by evidence, indicating that the applying student meets all prerequisites for taking the training
- d) general information on the applicant (e.g., name, address, and other information required for identification)

6.2 Evaluation

6.2.1 The trainer or training program may evaluate students. If so, all mechanisms used to evaluate the knowledge, skills, and abilities of the students shall be fair, valid, and reliable. Appropriate methods and procedures (such as collecting and maintaining statistical data) shall be defined to evaluate, at least annually, the fairness, validity, reliability, and general performance of each mechanism and shall correct all identified deficiencies.

If the trainer or training program offers written or oral examinations and/or skills evaluation, it shall have appropriate policies, procedures, and practices to ensure that

- a) the examination/evaluation is developed in a professional, comprehensive, and consistent manner, appropriately evaluating the students against the materials presented in the course and against the competency requirements of the task analysis in an objective manner
- b) the examination and examination material are secured
- c) the examination/evaluation is delivered by an examiner other than the trainer that presented the course; or, if that is not possible, that the trainer overseeing the examination/evaluation is fully informed about and instructed in the practices that ensure impartiality and security in the delivery of the examination/evaluation

6.2.2 The trainer or training program shall

- a) develop, implement, and maintain a survey document that allows students, subcontractors, and other program participants to provide comments, suggestions, criticisms, complaints, and other feed back on the training
- b) maintain records of participant feed back on training and how this information is used in the program maintenance and improvement