



**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals****Sub-Committee of Experts on the Transport of Dangerous Goods****Fifty-first session**

Geneva, 3-7 July 2017

Item 7 of the provisional agenda

**Global harmonization of transport of dangerous goods
regulations with the Model Regulations****Competency Based Training****Submitted by the Dangerous Goods Trainers Association (DGTA)*****Introduction**

1. The International Civil Aviation Organization (ICAO) has undertaken a major initiative to implement Competency Based Training (CBT) requirements for dangerous goods employers and employees that transport dangerous goods by air. The Dangerous Goods Trainers Association (DGTA) supports the concept of competency focused training and believes that safety can be enhanced if employees are competent in the dangerous goods functions that they are responsible for performing. Trainers can develop effective competency focused training programs but it is the responsibility of the employer to ultimately assess employee competency in the workplace. Many employers believe that it is sufficient to either send employees to external or internal dangerous goods training courses to fulfill their regulatory responsibilities. Many do not understand that they need to assess and validate that their employees are competent to perform their functions or have processes in place for continuous or periodic assessment to ensure that employees are competent to compliantly and safely transport dangerous goods. Current regulations require employers to test employees and maintain training records but don't specifically require employers to assess employee competency in the workplace.

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, paragraph 14).

2. The Dangerous Goods Panel (DGP) intends to implement revisions to Part 1;4 and to include guidance material in the 2019-2020 Edition of the ICAO Technical Instructions on the Safe Transport of Dangerous Goods by Air. The proposed revisions to Part 1;4 and the guidance material can be found on the ICAO public website at <http://www.icao.int/safety/DangerousGoods/Pages/NewTrainingProvisions0630-4506.aspx>. Comments on the revised training provisions were required to be submitted by 31 March 2017. Based on comments received, further amendments to the proposed new provisions may be made by the DGP. The Sub-Committee is requested to consider whether CBT is appropriate for all modes of transport and if so whether it should be implemented in a coordinated effort amongst regulatory bodies under the leadership of the Sub-Committee.

3. CBT is designed to ensure that employees can perform their jobs competently and it is function driven. Competency is the key element and it is defined as “a combination of skills, knowledge and attitudes required to perform a task to the prescribed standard”. CBT is characterized by a performance orientation and their measurement to better assess the employees knowledge, skills and ability to perform key functions. Continuous assessment is a basic element of any kind of CBT. Currently the UN Model Regulations require that all personnel involved in the shipping of dangerous goods must receive appropriate training in the requirements commensurate with their responsibilities. However, the Model Regulations do not require the employer to assess the competency of the employee on the job. While the Model Regulations require the employee to be tested, there is no requirement to assess their competency on the job. Some national regulations require the employer to ensure and assess employee competency. For instance, the Transport Canada Transport of Dangerous Goods Regulations state:

“An employer who has reasonable grounds to believe that an employee is adequately trained and will perform duties to which the training relates must issue a training certificate.”

The US Hazardous Materials Regulations define the employer’s responsibilities but only require that employees be trained and tested.

The Model Regulations state that “1.3.1 Persons engaged in the transport of dangerous goods shall be trained in the contents of dangerous goods requirements commensurate with their responsibilities.” And require employers to test employees and maintain training records but there is no specific requirement for employers to perform assessments of competency.

The question is should the Model Regulations replace or supplement testing with a competency based assessment, require employers to perform assessments and provide additional guidance on ensuring employees have appropriate dangerous goods competencies.

4. The DGTA believes that a competency-based approach to training should be flexible to accommodate job-specific and site-specific competencies. For example, competency should only have to be demonstrated for those dangerous goods classes with which an employee is responsible for offering for transport. We agree that, “...employers must consider their own operational and organizational environments...”, and that “the employer then determines the level of knowledge and/skills necessary to perform each of the customized competencies.” So, the competency demonstrated for those particular classes are relative to the job function. For example, if the company only ships limited quantity shipments, there is no need to train the employee on UN specification packaging. Revisions to the training provisions in the ICAO Technical Instructions should be coordinated multimodally otherwise employers may have different training programs based on the modes of transport they use to transport their dangerous goods. We support a goal, “...to develop provisions that would not put conventional...training methods out of compliance

but would allow an alternative training path that makes use of contemporary instructional methods.”

5. DGTA supports the objectives of competency based training but believes that it should be considered from a multimodal perspective. DGTA suggests that the Sub-Committee consider whether competency based training should be applied for all modes of transport. The questions provided in the annex are representative of some common questions received. These are provided to facilitate a discussion and for consideration and discussion by the Sub-Committee. The ICAO DGP survey may have identified other concerns. The Sub-Committee is invited to consider how competency based training would impact the current training regime. The DGTA believes that a harmonized training approach across all modes of transport is essential to reducing confusion surrounding the various training requirements to which an employer may be subject. DGTA is willing to assist (e.g. conduct workshops or correspondence working group meetings) the Sub-Committee if it is decided that this should be a work item for the 2017-2018 biennium.

Annex

Questions for Consideration for Implementing Competency Based Training based on Industry Comments:

- “Under a CBT regime would public DG classes still be acceptable?”
- Would CBT allow public courses for higher level employees, e.g. management, and require customization for everyone below management level, and if so, how would that level be determined?
- If “training” is received from a public source is it assumed the employer is responsible to apply an “assessment”? Companies use public training courses to address training needs since they do not have the internal resources to develop and facilitate the training. How do they accomplish assessments then?
- Under a CBT regime would written testing continue to be an acceptable method of determining competency and assessing employee performance?
- What are the benefits of written testing, versus situational testing, versus observation at actual work, and how could actual work observation be done for new employees who can’t work until training has been completed?
- With respect to 'continuous' assessment in practical terms what does this mean? Will this be every time someone ships something or once a year/every two years? This needs further consideration and should be left to the employer to determine.
- Could a CBT regime be very difficult for small shippers who send their students on to a training course because they do not have the expertise in house. How will they be able to do 'continuous' assessment on the job? Could it be that they would not necessarily have qualified or experienced staff to do the assessment? Could this will result in extra costs and could it drive shipments 'underground' and increase the likelihood of undeclared shipments.
- What about job functions that are hard to measure by direct observation, such as purchasing person knowing the ‘right type’ of UN-spec drum to order, or computer programmers knowing the sequence of information to program into a shipping paper printing program, or maintenance whose only function is a quarterly calibration of torque wrenches to match the latest closure instructions; how will the regulation expect their competency to be assessed/measured?
- The proposed updated record keeping requirements in section 4.2.7.1 of ICAO makes reference to record keeping for training “and” assessments. If training is received from a public source and the company performs the assessment would there need to be multiple training records? What would comprise evidence of a competent assessment? What will Competent Authorities accept for this?”