

IEC SYSTEM FOR CERTIFICATION TO STANDARDS

RELATING TO EQUIPMENT FOR USE IN EXPLOSIVE

ATMOSPHERES (IECEx SYSTEM)

**2018 Meeting of ExPCC WG3, ‘Question Bank’**

**Wednesday 20th June 2018, 1:30 – 5:30 PM**

**Meeting Report**

**Attendance:**

E. Galera J. Middlehurst

K. Holdredge (for E. la Rocco) K. de Gersem

M. Erdhuizen J. Strath

P. van der Sneppen P. Thurnherr (ExPCC Chair)

K. Graffi R. Wigg (ExPCC Deputy Chair)

B. Selamat M. Amos (Secretary)

G. Larsen

1. Opening at 1330 by Mr Amos of the IECEx Secretariat on behalf of the Convenor, Mr Dirk-Jan Schreurs (as a prior apology)
2. Members reviewed and confirmed ExPCC WG3 membership (according to ExPCC/001F/Inf).
3. Members noted the report from the 2017 meeting of ExPCC WG3 and also noted the comments from Mr Wigg on the background to Recommendation #1 from the 2017 ExPCC WG3 meeting as reproduced below:

*Recommendation #1 that ExPCC endorse a process in which all contributions to the Question Bank must be independently verified by ExPCC WG3 or a group formed from ExPCC WG3 members prior to inclusion in the Question Bank.*

and Mr Wigg’s reminder that this is the primary task of ExPCC WG3 in the future given that the ExPCC has endorsed the process as recommended above.

Members agreed that criteria for the review must at least include consideration of the following aspects:

* Non-ambiguity
* No ‘negative questions’ such as “Which option is NOT …. ?”
* No potential for obsolescence due to changes to Standards or regulations
* No regionally or nationally specific questions

In the absence of sufficient activity or progress by ExPCC WG3 to date on the review of the compilation of ExCB contributions to the IECEx Question Bank it was agreed that this review will be done via use the current Question Bank in accordance with the process outlined in IECEx OD 506

ACTION #1: the Secretary will make the compilation of ExCB contributions to the IECEx Question Bank available to all accepted ExCBs along with notification of the above agreement (subject to ExPCC approval) and guidance in the use of IECEx OD 506. All comments from ExCBs on the questions and or answers of concern need to be communicated to the IECEx Secretariat with their ID # and a proposal to amend or delete. The IECEx Secretariat to provide a compilation of comments for consideration by ExPCC WG3 at their next meeting or prior by correspondence.

1. **Status of Actions items from the 2017 meeting of ExPCC WG3**

Members noted the report from the Taskgroup (formed at the 2016 ExPCC WG3 meeting to progress sourcing and implementation of the Question Bank Management Software) that the agreed milestones (refer Annex A to this report) have not been achieved. Members then agreed that:

ACTION #2: the Taskgroup be reformed under the convenorship of Ms Middlehurst with membership comprising:

* Geir Larsen
* Marco Erdhuizen
* Erin la Rocco (as invited by Katy Holdredge)
* Arpad Veress
* Mark Amos

and tasked to

* 1. review the dates of the original plan, amend these as appropriate to be bothy realistic and achievable
	2. commence work according to the revised or reconfirmed plan
	3. provide regular updates on progress to the ExPCC WG3 Convenor, ExPCC Chairman and IECEx Secretariat as each milestone is achieved.

ACTION #3: as assistance to the Taskgroup, ALL ExPCC WG3 members are to review the specification (refer Annex B) being used by the Taskgroup and provide any comments or suggestions to Ms Middlehurst BEFORE the end of July 2018

1. Members noted that, at present, no Actions for ExPCC WG3 have arisen from
	* the 2017 ExPCC Meeting
	* the 2017 Meetings of other ExPCC Working Groups
	* the 2017 ExMC Meeting
2. Members noted that all applicant and accepted ExCBs have provided contributions to Question Bank however one ExCB still needs to provide mapping for their constructed response questions. The IECEx Secretariat has issued reminders to this ExCB.
3. Members noted that with the exception of one ExCB that still needs to provide mapping for their constructed response questions, the current compilation of questions and answers from other applicant and accepted ExCBs have been adequately mapped to enable review and use as per Action # 1 above.
4. Members noted the requirements on ExPCC WG3 as per item 3 above and also the requirement in IECEx OD 501 (Section A, Step 5) for assessors to check the sufficiency and suitability of Question Bank contributions submitted by ExCBs at the application stage and for scope extensions.
5. Members agreed that a future meeting of ExPCC WG3 needs to consider a future approach to remapping of Question Bank as Standards are revised or added (noting proposed revisions to IECEx OD 503 and OD 504 as circulated in Meeting Pack)
6. Members did not review IECEx OD 506 at this meeting but noted that work on Action#1 above will provide a form of review process.
7. **Other Business**

Nil

1. Members requested that the next meeting of ExPCC WG3 be scheduled for a full day as part of the 2019 IECEx Operational Meetings series of location, venue and date to be determined by IECEx Executive.

Close @ 1640

**ANNEX A**

**Question Bank Management Software – Sourcing and Implementation Plan**

|  |  |  |
| --- | --- | --- |
| **Task** | **Actioner** | **Completion Due** |
| Mapping of existing question bank (both selected and constructed type questions and answers) according to Clauses 5.1 to 5.47 of OD 504 (this will NOT include details of original contributor or source Standards reference) | Allan Ogden | 31 Dec 2017 |
| Software Taskgroup to seek final approval for Specification from ExPCC WG3 members  | Secretariat | 31 May 2017 |
| Taskgroup to approach, using final approved Specification and sample questions for use in testing software, potential providers of suitable software  | Taskgroup  | Following 31 May 2017 |
| Taskgroup to provide at least three software options and a recommendation of the preferred option for the Question Bank Management Software for consideration by ExPCC WG3 and then by ExPCC. The report on software options will include at least the following details:* Delivery and implementation requirements and timeframes
* Total cost and details of cost components for development, installation, ongoing maintenance, future enhancements and updates, training and technical support
* Examples output (assessment papers, reports as per Specification) based on use of sample questions.
 | Taskgroup | 31 Dec 2017 |
| ExPCC to make recommendation to ExMC and request approval by correspondence | ExPCC WG3 and ExPCC |  |
| Launch Question Bank and associated Management Software for use by all accepted ExCBs |  | ? |

**ANNEX B**

**Function Specification**

IECEx CoPC Scheme Question Bank Application Software

The IECEx CoPC Scheme Question Bank Application Software must perform the following functions:

1. Receive, collate and store the complete set of questions and answers sets (selected response and short written answer types) with password security for
	1. IECEx Certification Body (ExCBs) for
		1. generating assessment examination questions sets for Units within their current scope when logged at Level 1
		2. adding draft questions to System ‘inbox’ for subsequent review by ExPCC WG3 prior to being made available for use in generating assessments
	2. ExPCC WG3 for adding new questions and answers for all Units irrespective of their scope of acceptance
	3. ExPCC WG3 for reviewing and editing existing questions for all Units irrespective of their scope of acceptance
	4. ExPCC WG3 Convenor for all operations available to ExPCC WG3 plus ability to edit content adding new questions and answers
	5. Administrator – all operations available to (a), (b), (c) and (d) plus ability to edit and delete content and adjust configuration of the software
2. Enable use of existing questions and answers in current Question Bank (stored as an Excel spreadsheet) eg via input as an .CSV file or similar format available as an export from Excel
3. Enable addition of new questions and answers by ExCBs (subject to prior review by ExPCC WG3)
4. Ability to accept and manage drawing files of various formats, photos, graphics, sound and other multimedia items
5. Ability to mark answers for multiple choice questions and report results (showing actual responses for each question)
6. Enable ‘re-mapping’ of questions and answers by Editor (currently questions are ‘mapped’ according to the Critical Aspects of Evidence (5.1 to 5.46) specified in IECEx OD 504
7. On request from an ExCB by specifying which IECEx Unit(s) of Competence (eg. Ex 001 or Ex 001 and Ex 006) is to be assessed, generate a unique assessment examination question set (as HTML and PDF format) by random selection of the quantity of questions specified in Table 2 of IECEx OF 503 such that multiple use of same / similar questions is avoided and the total assessment time does not exceed the limit defined in OD 503
8. In parallel with the above generation of an assessment examination question set, also generate an Examiners set of the same questions and their associated answers
9. Be able to accommodate scope limitations in the mapping and therefore generation of examination papers
10. Be able to increase the number of questions to compensate when scope limitations are applied so that the requirements of OD 503 are satisfied
11. Report on the number of times a specific question has been answered correctly / incorrectly
12. Report on how many times a specific question has been used and have facility to exclude ‘overused questions’ for a defined period or person. The ability to also reorder these questions if they appear on repeat papers for a person.
13. Have ongoing technical support and facility for upgrade, update and expansion