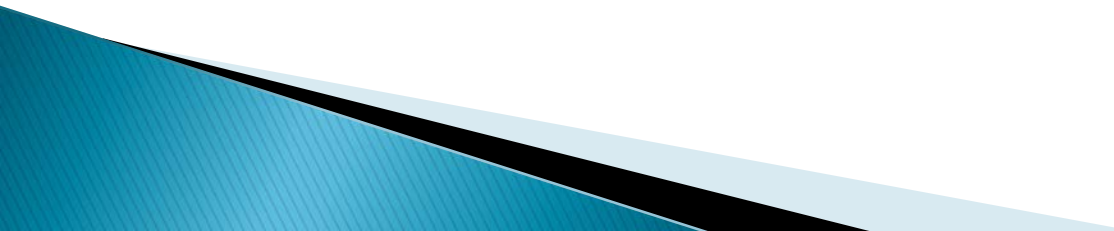


IECEX Assessor Training

Use of assessment and test data

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Scope of presentation/workshop

- ▶ Test and assessment data that can appear in a ExTR report that is endorsed by an ExCB and issued by an ExTL
 - ▶ Above ExTR supporting issue of an IECEx CoC.
 - ▶ Initially look at the situation from the ExTR perspective
 - ▶ Later introduce possible difference from ExCB perspective
- 

What do the rules say?

- ▶ IECEx 02
- ▶ 8.2 IECEx Test Report (ExTR)
- ▶ 8.2.1 Preparation
- ▶ An ExTR is prepared and issued by an ExTL but must be endorsed by an ExCB, associated with the ExTL, recording the product design assessment, examination and assessment and testing work carried out in order to verify the conformity of Ex equipment with the requirements of the stated standards. An allocated part of the front cover sheet of the ExTR or a separate sheet may be used by the ExCB for endorsing the ExTR.

IECEX02

- ▶ **9.4 Examination of documentation and assessment/testing of samples**
- ▶ The ExCB shall arrange for its associated ExTL to examine the documentation and the sample(s) to verify that the Ex equipment design is in conformity with the standard(s). The ExTL shall examine the sample(s) for compliance with the documentation, test the sample(s) as specified in the standard(s) and compile an ExTR.

Potential sources of test and assessment data

- ▶ ExTL
- ▶ ATF (Additional Test Facility)
- ▶ Manufacturer of product submitted
- ▶ Subcontracted laboratory
- ▶ Witness testing (OD 024)
- ▶ Documentation

How is above addressed in IECEx?



Assessments

- ▶ All bodies producing test data for use in ExTR must have been assessed:
 - ExTL – by IECEx assessment team
 - ATF – by IECEx assessment team
 - Bodies covered by OD 024 – by ExTL/ExCB
 - Subcontracted tests – by ExTL/ExCB but may rely on national accreditation or IECEE assessment

Source of assessment or test data	Qualification and Control Process for acceptance of assessment and test data				ExTL may use assessment data in their ExTR?	ExTL may use test data in their ExTR?
	IECEX assessment & approval by ExMC	ExCB/ExTL assessment	Sub-contracted	Witnessed		
ExTL	Yes	NA	NA	NA	Yes	Yes
ATF	Yes	NA	NA	NA	Yes	Yes
Manufacturer Covered by OD 024 (off-site and witness testing)	No	Yes	NA	Possibly Off-site vs witness testing	No	Yes
Manufacturer Not witnessed	No	Yes	NA	No	Possibly, eg when permitted by standard or reviewed by ExTL	Generally – No (but some exceptions may apply, eg for certification of ranges of equipment)
Non-IECEX facility – subcontracted	No – but may be referred to in IECEX assessment reports	Yes	Yes	No	No	Yes
Non-IECEX facility – Covered by OD 024 (witness testing) – user’s or third party’s	No	Yes	NA	Yes	No	Yes
Non-IECEX facility – Not subcontracted Not witnessed	No	Possibly	No	No	No	No

Scenario 1

- ▶ ExTR is drafted by ATF, including assessment of compliance with standards (within scope)
- ▶ ExTR is reviewed and signed off by ExTL which has the agreement with ATF
- ▶ ExTR is endorsed by ExCB
- ▶ ExTR is issued by ExTL

Is this OK?



Scenario 2

- ▶ ExTR is drafted by ATF, including assessment of compliance with standards (within scope)
- ▶ ExTR is reviewed and signed off by ExTL which does not have agreement with ATF
- ▶ ExTR is endorsed by ExCB
- ▶ ExTR is issued by ExCB

Is this OK?



Scenario 3

- ▶ ExTR is drafted by non-IECEx body, based on testing done
- ▶ ExTL does assessment to standards, reviews testing and compiles and signs the ExTR
- ▶ ExTR is endorsed by ExCB
- ▶ ExTR is issued by ExTL

Is this OK?



Scenario 4

- ▶ ExTL reviews manufacturer and signs agreement according to OD 024
- ▶ ExTL accepts tests from manufacturer without witnessing testing, and compiles and signs the ExTR
- ▶ ExTR is endorsed by ExCB
- ▶ ExTR is issued by ExTL

Is this OK?



Scenario 5

- ▶ ExTL tests, or witnesses tests, on samples of Ex e motors from a range
- ▶ Manufacturer supplies data for other motors on temperature rise, time t_E and starting current ratio I_A/I_N .
- ▶ ExTR includes whole range of motors, including above data
- ▶ ExTR is endorsed by ExCB
- ▶ ExTR is issued by ExTL

Is this OK?

ExTL vs ExCB

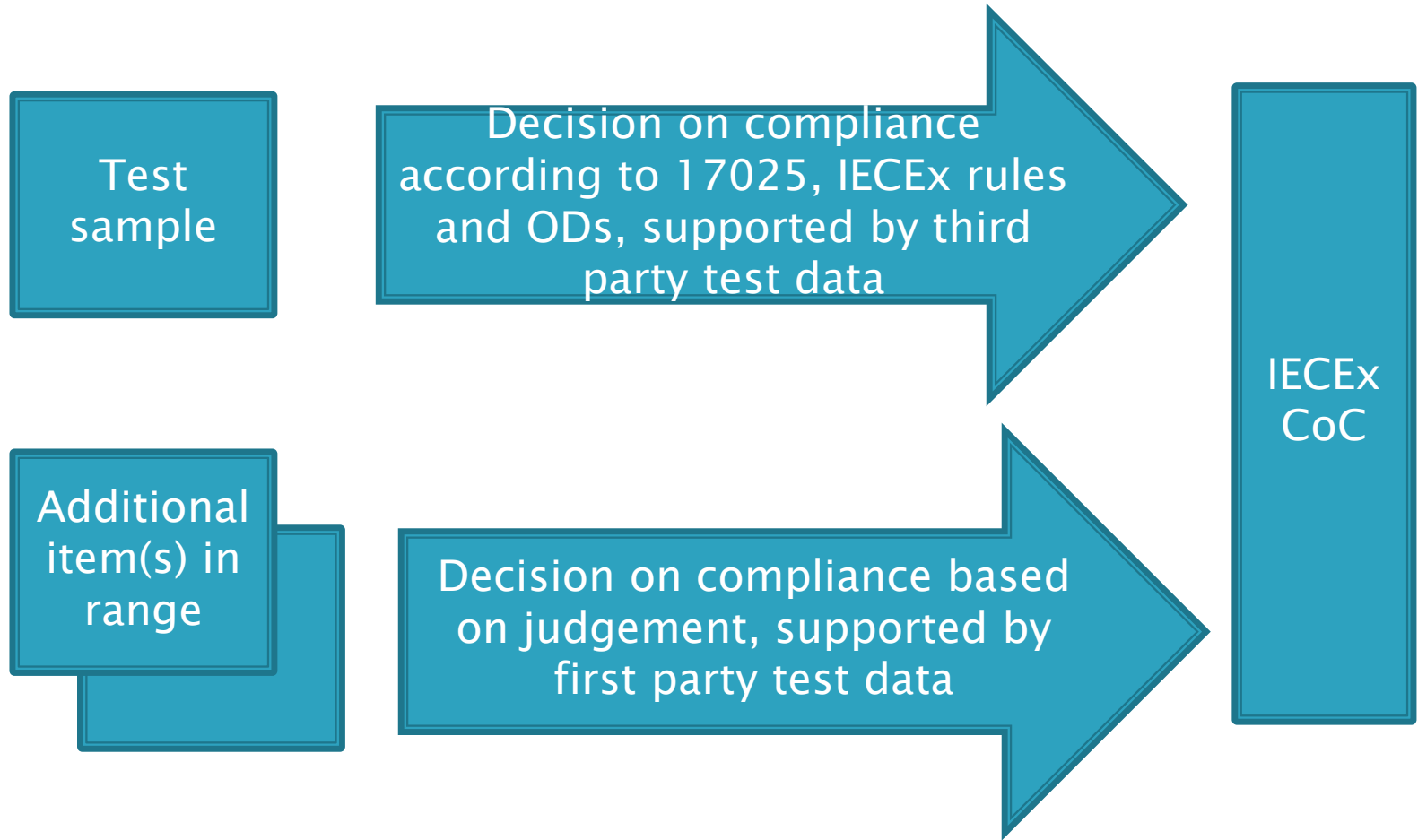
Test
sample

- Tests at ExTL
- Tests by ExTL at manufacturer
- Manufacturer's data per standard

Additional
item(s) in
range

- Data from tests by manufacturer
- Data from calculations by manufacturer

ExTL vs ExCB



Expectations of IECEx assessors

- ▶ Discussion on what to consider when reviewing ExCBs and ExTLs:
 - Procedures
 - Projects
 - Agreements

Possible future guidance document

- ▶ Discussion