

## Barrier Gland Criteria – Questions and Answers

Q How serious is the issue that you have outlined?

A EEMUA has identified an increased risk resulting from following the new IEC criteria. How serious that is for a particular installation may be highly dependent on the circumstances of the installation.

Q Aside from the factors considered in the assessment criteria, what else is likely to result in increased risk?

A Regular operation at elevated temperatures is detrimental. Also an installation might be compliant to the standard but nevertheless have imperfections. If a barrier gland has not been used then other aspects of the installation become more critical, such as cable circularity and interstices, cable materials, dimensional changes due to cable spooling/unspooling and flexing. With some cables, such as instrumentation cables with only a few cores, consistent circularity may be difficult for the manufacturer to achieve.

Q I only have a copy of the new IEC standard. Where can I find the old assessment criteria?

A The old assessment criteria were given in IEC 60079-14:2008. [BS EN 60079-14:2014](#) (the UK version of the revised IEC standard) includes a UK national annex which has the old assessment criteria and discusses the issues. The national annex is not a part of the standard available from the IEC. [EEMUA 186](#) – The Practitioner's Handbook for potentially explosive atmospheres and EEMUA 214 –The Toolbox Guide (available from [CompEx](#)) also contain the old criteria.

Q I have completed a number of installations without barrier glands, which would have required them if I had used the old criteria. What should I do now?

A You should do an initial risk assessment on each of those installations and produce a prioritized list for detailed risk assessment – which may include visual inspection and disassembly of the flameproof gland. If serious cable damage is found so that cable replacement is required then a barrier gland should be used. For installations with less serious damage, periodic inspections should be scheduled depending on the period over which the damage has occurred.

Q I am just about to go to tender for some new installations. My supplier is used to working to IEC 60079-14:2013. What should I do?

A Tell your supplier that rather than using the international version of the IEC standard, you wish to use the BSI version [BS EN 60079-14:2014](#) and apply the UK national annex criteria on the grounds of risk reduction.