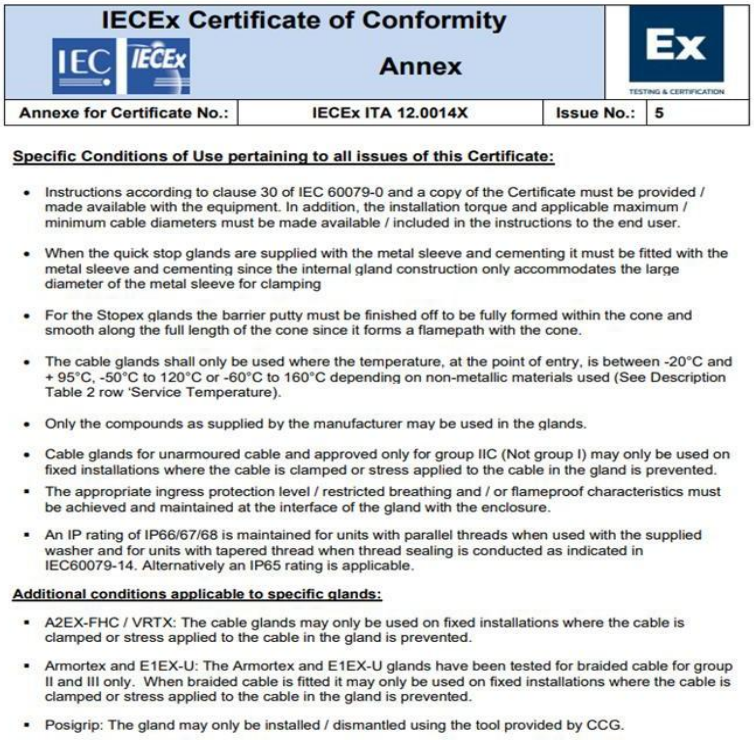
VUL-FRM-13-07-Explosion Protected Electrical Equipment – Component Replacement

Equipment		**Component** (e.g Light, Alternator etc.)	

Details of Replaced Component			
Sequence Number	Criteria	Comments	Initial
1.	Record the serial number and the approval markings of component that was removed.	S/N:_____ Approval:_____	
2.	Record the location of the component that was removed e.g. RH rear etc.	Location:_____	
3.	Record Date of component change out	Date:_____	
Details of New Component			
1.	Does the item have the appropriate markings? PLEASE RECORD MARKINGS IN THE COMMENTS COLUMN **Approval:** • Aus Ex • QMD • ANZ Ex • IEC Ex TSA • IEC Ex SIM • IEC Ex ITACS • IEC Ex TUV • IEC Ex MSC **Explosion protection technique** (e.g. Exd, Exia etc.) **Serial number** **Gas grouping** (must be group 1) • Temperature Rating appropriate for the item (e.g., T4 or below)	Approval:_____ Ex Protection Technique_____ S/No_____ Gas Grouping_____ Temp Rating _____	

Details of Replaced Component			
Sequence Number	Criteria	Comments	Initial
2.	Does the new component have a Certificate of conformity and a Declaration of conformity? If so, do the details match what is marked on the equipment?		
3.	Has the copy of the Certificate of conformity and a Declaration of conformity been attached to this document or is it already existing in the dossier	Please circle **ATTACHED** **IN DOSSIER**	
4.	Is the component new from manufacture? **Y / N** **Record manufacture and next due overhaul dates** *Note : Next overhaul date is 4 years from date of manufacture of Exd / Exe or 6yrs for I.S Equipment*	If the answer is NO please record as N/A Manufacture Date:_____ Next Overhaul Date:_____	
5.	If the component is new, is there a copy of the manufacturers Declaration of conformity and has it been attached to this document?	Record equipment number, component details & installation date on top of manufacturers declaration certificate E.g. – MT09 RODS Light 26082020	
6.	Has the component had an overhaul? **Y / N** **Record details as appropriate** *Note : Next overhaul date is 4 years from date of overhaul of Exd / Exe or 6yrs for I.S Equipment*	If the answer is NO please record as N/A Overhaul Date:_____ Overhaul Cert.#:_____ Overhaul W/Shop:_____ Next OH Due Date:_____	

Details of Replaced Component			
Sequence Number	Criteria	Comments	Initial
7.	If the component has had an overhaul, is there a copy of the overhaul certificate and has it been attached to this document?	Record equipment number & installation date on top of overhaul certificate E.g. – MT09 RODS Light 26082020	
8.	Conditions of Certification (e.g. Condition of certification associated with use of an Ex d gland) 		
9.	Record conditions of certification and confirm compliance.		

IECEx Certificate of Conformity

Annex

Annexe for Certificate No.:	IECEx ITA 12.0014X	Issue No.:	5

Specific Conditions of Use pertaining to all issues of this Certificate:

- Instructions according to clause 30 of IEC 60079-0 and a copy of the Certificate must be provided / made available with the equipment. In addition, the installation torque and applicable maximum / minimum cable diameters must be made available / included in the instructions to the end user.
- When the quick stop glands are supplied with the metal sleeve and cementing it must be fitted with the metal sleeve and cementing since the internal gland construction only accommodates the large diameter of the metal sleeve for clamping
- For the Stopex glands the barrier putty must be finished off to be fully formed within the cone and smooth along the full length of the cone since it forms a flamepath with the cone.
- The cable glands shall only be used where the temperature, at the point of entry, is between -20°C and + 95°C, -50°C to 120°C or -60°C to 160°C depending on non-metallic materials used (See Description Table 2 row 'Service Temperature).
- Only the compounds as supplied by the manufacturer may be used in the glands.
- Cable glands for unarmoured cable and approved only for group IIC (Not group I) may only be used on fixed installations where the cable is clamped or stress applied to the cable in the gland is prevented.
- The appropriate ingress protection level / restricted breathing and / or flameproof characteristics must be achieved and maintained at the interface of the gland with the enclosure.
- An IP rating of IP66/67/68 is maintained for units with parallel threads when used with the supplied washer and for units with tapered thread when thread sealing is conducted as indicated in IEC60079-14. Alternatively an IP65 rating is applicable.

Additional conditions applicable to specific glands:

- A2EX-FHC / VRTX: The cable glands may only be used on fixed installations where the cable is clamped or stress applied to the cable in the gland is prevented.
- Armortex and E1EX-U: The Armortex and E1EX-U glands have been tested for braided cable for group II and III only. When braided cable is fitted it may only be used on fixed installations where the cable is clamped or stress applied to the cable in the gland is prevented.
- Posigrip: The gland may only be installed / dismantled using the tool provided by CCG.

Internal Electrical Inspections – Mandatory for ALL equipment types			
Sequence Number	Criteria	Comments	Initial
1.	Ensure that the enclosure is free from obvious damage and that it is clean and dry.		
2.	Ensure that the flame path surfaces are free from damage.		
3.	Ensure all unused gland entries are fitted with suitable Ex blanking elements No reducers allowed to be used in conjunction with bungs on FLP equipment	Approval: Ex Protection Type Batch/No Gas Grouping Temperature Rating	
4.	Where glands are used, are they of the correct type to maintain the relevant Ex protection	Approval: Ex Protection Type——————— Batch/No Gas Grouping Temperature Rating	
5.	Where Reducers are used, are they of the correct type to maintain the relevant Ex protection Only one reducer to be used in conjunction with cable glands on FLP equipment	Approval: Ex Protection Type Batch/No Gas Grouping Temperature Rating	

Internal Electrical Inspections – Mandatory for ALL equipment types			
Sequence Number	Criteria	Comments	Initial
6.	Where applicable, are all lenses secure and intact?		
7.	Check bolts and confirm the correct type and length as per approval documents.		
8.	Upon completion of inspection, ensure all bolts are in place and are tight. All FLP gaps are < **0.2mm**		

Internal Electrical Inspection – Motor Specific			
Sequence Number	Criteria	Comments	Initial
1.	Record motor details	Motor Description:_____ kW Rating:_____ FLC Amps:_____ Location of Inspection:___	
2.	Carry out Insulation Test **Record Results**	Phase - Phase:_____ Phase - Earth:_____ Rating of Megger Used:_____	
3.	Where fitted, are all motor thermistors operational? (Measure and Record)	Resistance 1: Resistance 2: Resistance 3:	
4.	Where fitted, are all motor RTD's operational? (Measure and Record)	Resistance 1: Resistance 2: Resistance 3:	

Electrician Sign Off			
Name			
Signature		Date	
EEM Approval			
Name			
Signature		Date	

Documentation and Pulse Closeout			
Sequence Number	Criteria	Comments	Initial
1.	Department Planner Planner to update relevant maintenance plan to capture next component change out due date Note : Next overhaul date is 4 years from date of manufacture of Exd / Exe or 6yrs for I.S Equipment	Record details Overhaul / Manufacture Date: _____ Next OH Due Date In Pulse _____ For instances where the whole machine/piece of equipment is tracked as one date and the component date extends longer than the existing overhaul date, record as N/A	
2.	**Maintenance Department** Update code C1 and / or code D dates on the approvals spread sheet		
3.	**Maintenance Department** File the completed Ex component change out form in the equipment verification dossier (all change out forms to be filed together in a separate clear slip at the front of the dossier)		
4.	**Maintenance Department** If the component has had an overhaul, ensure that the overhaul certificate has been added to the equipment verification dossier		
5.	**Maintenance Department** Relocate the removed components overhaul certificate to the rear of the verification dossier (to save confusion as to what is currently fitted to machine)		