INTERIM INSTRUCTION # AMS 001/2014

(To be provided by the Document Control Officer)

Protection of Steel Standard Poles incorporating Street Lights

DOCUMENT CONTROL

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STAKEHOLDERS The following positions must be consulted if an update or review is required:	**NOTIFICATION LIST** The following positions must be notified of any authorised change:
ASSET MANAGEMENT SERVICES - MANAGER	**AM'S**
ENGINEERING & PROJECTS – MANAGER	**WDC'S**
PROCUREMENT- MANAGER/ SOURCING & SUPPLY CHAIN MANAGERS	**REGIONAL MANAGERS**
INSPECTORATE ELECTRICAL – MANAGER HEALTH & SAFETY	**LOGISTICS OFFICERS**

1. OVERVIEW

Horizon Power has being experiencing a high number of electrical shock incidents on streetlight columns with both Class I and Class II type fittings. In all cases the streetlight fuse protection has not cleared the fault, because the **FAULT LOOP IMPEDANCE** of the faulted circuit is too high.

The existing BILL cut-outs are geared to Class II type installations with no M.E.N. or connection of the earth to the standard.

The purpose of this Instruction is to inform Operation's Asset Managers of the requirement to install M.E.N.'s, Earth Loops' and Fuses into the Street Light cut-outs. These bonds create an effective link between neutral and the conductive pole.

Installation of the M.E.N., earth loops and fuses as detailed in section 4.

2. INSTRUCTION

This instruction applies to Asset Managers, Work Delivery Coordinator's (WDC's) and Logistics Officers. This interim instruction shall be effective on the date it's approved by Manager Asset Management Services.

All personnel involved in the management and installation of Street Lights are required to strictly adhere to this interim instruction, unless a written authorisation is sought from Manager Asset Management Services for any deviations from this instruction.

New modified requirements to be implemented by this instruction:

- Compulsory inclusion of M.E.N. loop between Neutral and Earth Terminals on the supply side of the cut-outs (new and existing).
- Compulsory inclusion of the 6 mm Earth Loop between Earth Terminal of the cut-out and steel standard (new and existing), which must be bolted to the cut-out mounting bracket of the steel standard.
- Compulsory inclusion of 10 A LST fuse and removal of any solid links for all cut-outs (new and existing) on the active link.

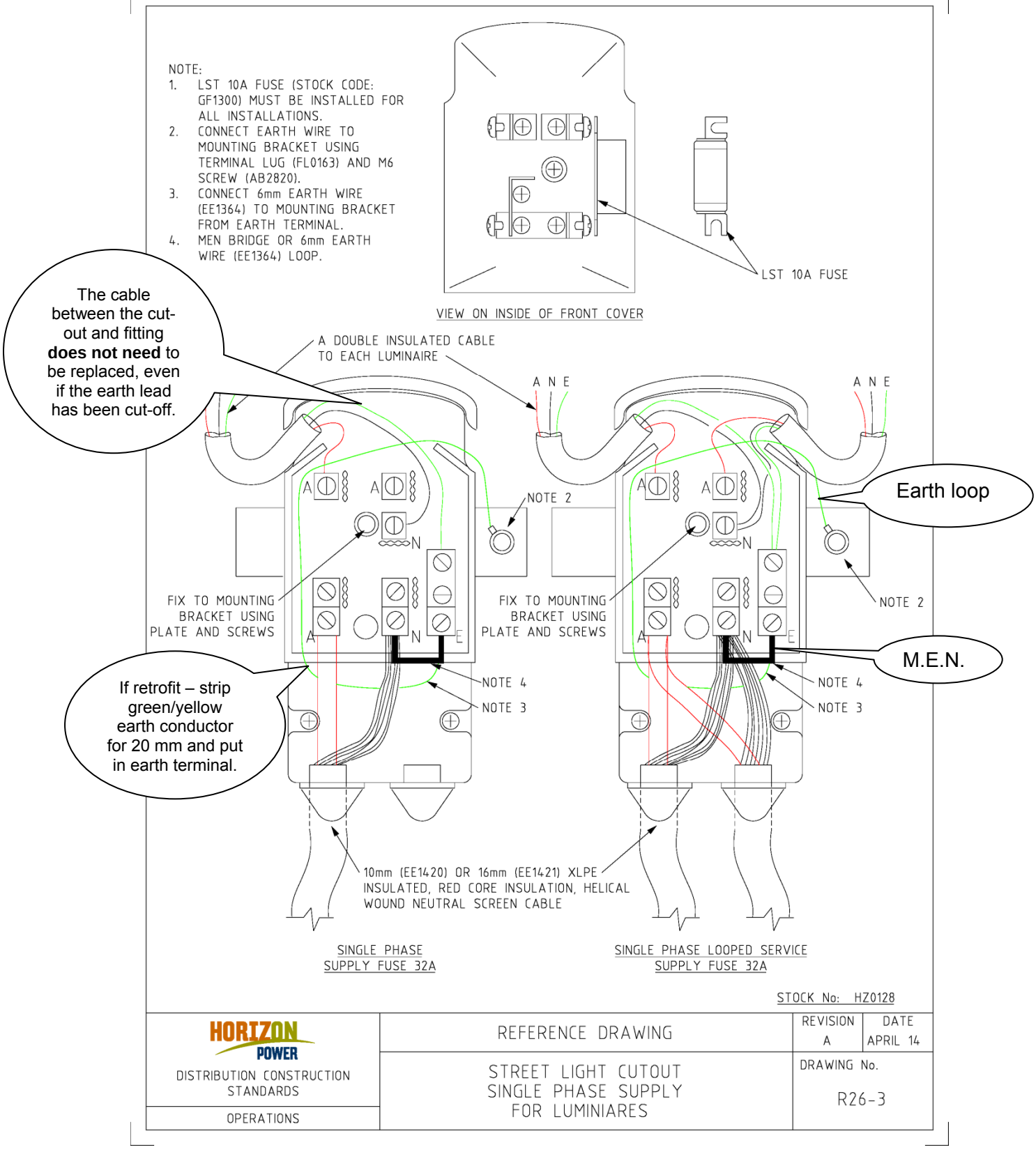
Due to the potential risk to the safety of our employees and the public**, these modifications will be required to captured and entered into ellipse**. The data required and the method of capturing, have been provided at the end of this document. A completion data table has been included for use as well as a list of existing "steel standards" by district. Technical Bulletin 09/16 (CS10 4297763) contains more information on the test method.

3. DUE DATE

This interim instruction shall be effective on the date it's approved by Manager Asset Management Services and its instructions are to be applied immediately

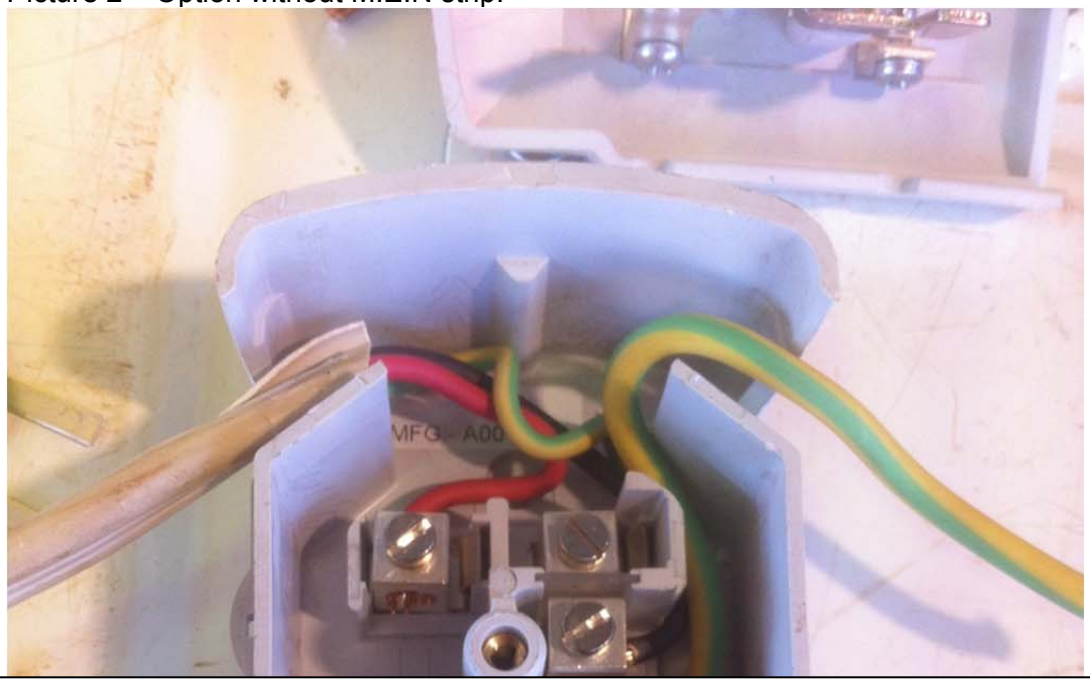
4. CONSTRUCTION AND INSTALLATION DRAWINGS

The following drawing relates to the installation of the M.E.N., Earth Loops and Fuses.



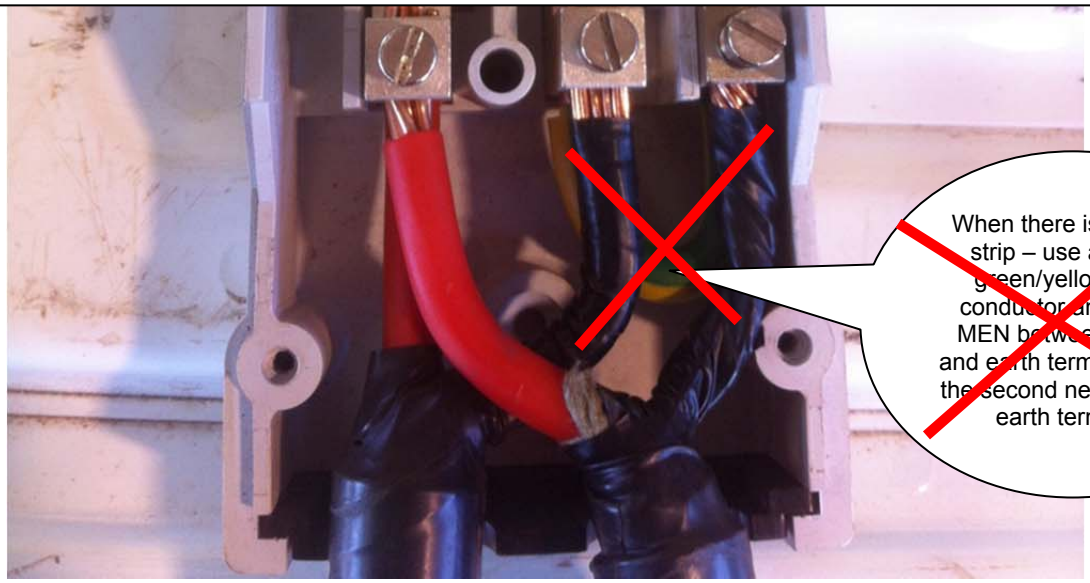
Picture 1 – Option with M.E.N strip

Picture 2 – Option without M.E.N strip.



THIS OPTION CANNOT BE USED!!

Streetlights are still considered as **INSTALLATIONS** under the regulations and until the regulation changes, the **NEUTRALS** shall be on one terminal and the **EARTH** on the other with a loop or bridging between them.



5. COMPLIANCE AND DATA RECORDS

The following information needs to be captured in Ellipse:

1) The date of the MEN and Earth loop install

   Data Field Name: DTBILLE
   Data Field Attribute Name: MEN Added TO BILL (Date)
   Field Type: Date
   Field Location (within the Nameplate tab of MSE600)

2) The resistance measured between neutral terminal and pole exterior

   Data Field Name: OBILLO
   Data Field Attribute Name: MEN TO EARTH (Resistance)
   Field Type: Number
   Field Location (within the Nameplate tab of MSE600)

The table below can be used

BILL CUT-OUT MODIFICATION – “Data Capturing Sheet”

District:_____________________________

Suburb	Short Plant ID	Pole No	DTBILLE (M.E.N. added to BILL)	OBILLO (M.E.N. to Earth) (Ω)	Pole Height (m)	Outreach type
Ellipse MSE600						
Location Tab	General Tab		Nameplate Tab			
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
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					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad
					6.5/10.5/12.5	Sgl/Dbl/Quad

REQUIRED – Suburb, Short Plant ID, Pole Number, Modification Date and Resistance to be completed (numbers in brackets indicate ellipse sequence numbers)

WANTED – Pole Height and Outreach Type to be selected (numbers in brackets indicate ellipse sequence numbers)