IET Wiring Regulations (BS 7671:2008+A3:2015) - SECTION 706 CONDUCTING LOCATIONS WITH RESTRICTED MOVEMENT

706.1 Scope
The particular requirements of this section apply to:

(i) fixed equipment in conducting locations where movement of persons is restricted by the location, and
(ii) to supplies for mobile equipment for use in such locations.

A conducting location with restricted movement is comprised mainly of metallic or other conductive surrounding parts, within which it is likely that a person will come into contact through a substantial portion of the body with the metallic or other conductive surrounding parts and where the possibility of interrupting this contact is limited.

The particular requirements of this section do not apply to locations which allow a person freedom of bodily movement to work, enter and leave the location without physical constraint. For installation and use of arc welding equipment, see IEC/TS 62081.

This section does not apply to electrical systems as defined in BS 7909 used in structures, sets, mobile units etc as used for public or private events, touring shows, theatrical, radio, TV or film productions and similar activities of the entertainment industry.

706.41 Protection against electric shock

706.410.3.5 The protective measures of obstacles and placing out of reach (Section 417) are not permitted.

706.410.3.10 In a conducting location with restricted movement the following protective measures apply to circuits supplying the following current-using equipment:

(i) For the supply to a hand-held tool or an item of mobile equipment:

(a) electrical separation (Section 413), subject to only one item of equipment being connected to a secondary winding of the transformer, or

NOTE: The transformer may have two or more secondary windings.

(b) SELV (Section 414).

(ii) For the supply to handlamps:

(a) SELV (Section 414). It is permissible for the SELV circuit to supply a fluorescent luminaire with a built-in step-up transformer with electrically separated windings.

(iii) For the supply to fixed equipment:

(a) automatic disconnection of the supply (Section 411) with supplementary equipotential bonding (Regulation 415.2). The supplementary bonding shall connect exposed-conductive-parts of fixed equipment and the conductive parts of the location, or

(b) by use of Class II equipment or equipment having equivalent insulation (Section 412), provided the supply circuits have additional protection by the use of RCDs having the characteristics specified in Regulation 415.1.1, or

(c) electrical separation (Section 413), subject to only one item of equipment being connected to a secondary winding of the isolating transformer, or

(d) SELV (Section 414), or

(e) PELV (Section 414), where equipotential bonding is provided between all exposed-conductive-parts, all extraneous-conductive-parts inside the location, and the connection of the PELV system to Earth.

706.411 Protective measure: Automatic disconnection of supply

706.411.1 General

706.411.1.1 Only circuits and the protective measures for supplying equipment indicated in Regulation 706.410.3.10 are permitted.
706.411.1.2 If a functional earth is required for certain equipment, for example measuring and control equipment, equipotential bonding shall be provided between all exposed-conductive-parts and extraneous-conductive-parts inside the location and the functional earth.

706.413 Protective measure: Electrical separation
706.413.1.2 The unearthed source shall have simple separation and shall be situated outside the conducting location with restricted movement, unless the source is part of the fixed installation within the location as provided by item (iii) of Regulation 706.410.3.10.

706.414 Protective measure: Extra-low voltage provided by SELV or PELV

706.414.3 Sources for SELV and PELV
706.414.3(ii) A source for SELV or PELV shall be situated outside the conducting location with restricted movement, unless it is part of the fixed installation within the location as provided by item (iii) of Regulation 706.410.3.10.

706.414.4 Requirements for SELV and PELV circuits
706.414.4.5 Where SELV or PELV is used, whatever the nominal voltage, basic protection shall be provided by:
   (i) basic insulation complying with Regulation 416.1, or
   (ii) barriers or enclosures complying with Regulation 416.2.