

item	section	edits
1	1.1	Please explain or define informative.
2	2.1©	<del>(c) any CABLING on the CARRIER'S side of the NETWORK BOUNDARY whether or not such CABLING is located in CUSTOMER PREMISES, e.g. LEAD-IN CABLING.</del>
3	2.6	<del>.In the performance of any cabling work, in general the</del> The cabling provider should ensure that.
4	2.6	The cabling provider <del>should</del> shall ensure that
5	2.7	<del>'... and to minimise the risk of crosstalk and adverse influences between ... '</del>
6	2.9 (g)	suggest replacing 'other workers' with 'ordinary persons'
7	2.9 (k)	suggest the replacement of 'ordinary persons' with `all persons`
8		suggest the insertion of `accessible` as a definition ... <i>capable of being reached for inspection, maintenance or repairs, but does not include destructive dismantling of structural components.</i>
9	4.2.4	' ... a wire or <del>strengthened</del> strength member that is ...'
10	??	suggested insertion 'bonding' as a definition . <i>Bonding is the connection intended to safely and effectively equalise the potential difference between two metallic items</i>
11	4.2.32	suggested edit for technical clarification `... a location that <del>is</del> may be continuously or...'
12	??	suggested insertion 'Earthing' as a definition . <i>earthing is the establishment of a reference for the electrical power source or electrical equipment , or both</i>
13	4.2.37	suggested deletion of EPR definition and replaced with ' <i>The potential difference between the local earth and the remote earth due to the flow of electric current from the line to the earthing system</i> '
14	4.2.37 (note 1)	suggested deletion of '... system <del>of an HV site</del> '. T
15	4.2.40	suggested insertion `the CUSTOMER (or service) or any other person (ordinary person) ...'
16	4.2.40	suggested insertion `... or any other person (ordinary person) that ...'
17	4.2.40	suggested deletion <del>E.g. a family member or an employee of the customer</del>
18	4.2.40	suggested deletion <del>Note: An end user is normally considered to be an ordinary person for the purposes of safety for this standard.</del>
19	4.2.41	Suggested edit. `the area around an earthing system <del>bounded by</del> with a contour joining all points of EPR equal to the maximum acceptable voltage <del>below</del> outside of which no special precautions need to be taken to protect telecommunication services, facility, CABLING PROVIDERS and ORDINARY PERSONS'

20	4.2.42 (note)	Suggested deletion of this note .
21	4.2.53(f)	suggested insertion (f) <i>An uninsulated HV-earth down conductor</i>
22	4.2.62	`... a device that <i>electrically</i> isolates ...'
23	4.2.67 (b)	suggested edit `... or the normal automatic operation, of <i>any-thing item</i> that the CABLING is fixed ... '
24	4.2.67 (c)	What does this mean
25	4.2.67 (d)	Suggested deletion. `... a particular <del>type-of</del> activity (other than CABLING WORK or demolition of CABLING) which has been ...'
26	4.2.67 (d)	suggest deletion of <i>where the CABLING is installed ..</i>
27	4.2.67 note 4	<i>Installing CABLING at a PREMISES where it will obstruct the normal activities <del>at a PREMISES</del> should be avoided. - <del>as</del> Such <del>such</del> an installation may not comply with the general requirement of this Standard, for CABLING to be installed in accordance with the principles of safe and sound practice. I</i>
28	4.2.67 note 5	<i>Note 5: Loosely-installed <del>or unsupported</del> CABLING either in a BUILDING cavity, in rigid ducting or installed as AERIAL CABLING would not typically be an example of MOVABLE CABLING.</i>
29	4.2.71	`... above-ground TRUNKING system, <del>is</del> may be ...'
30	4.2.72	`... to establish <i>cross-</i> connections ...'
31	4.2.74	`... mating SOCKET. <i>or port...</i> '
32	4.2.75	(b) a <i>building or</i> group of BUILDINGS that <i>is are</i> located in the same vicinity.
33	4.2.79	<i>a conductor, other than a main earthing conductor, intended to carry earth fault currents and connecting any portion of the electrical earthing system to the portion of the electrical installation or electrical equipment required to be earthed, or to any other portion of the <del>electrical</del> earthing system.</i>
34	4.2.79 note	<i>This must be performed by a skilled person A PROTECTIVE EARTHING CONDUCTOR is part of the electrical installation and <del>usually needs to shall</del> be installed by a skilled person i.e. licensed electrical worker.</i>
35	4.2.80	<i>`capable of being reached quickly and without climbing over or removing obstructions, <del>mounting upon a chair</del>, - or using a movable ladder, and in any case not more than 2 m above the ground, floor or platform. [AS/NZS 3000]'</i>
36	??	<i>'Reasonable: as much as appropriate of fair '</i>
37	5.7.2.2	<b>WARNING ES3 CIRCUIT HAZARDOUS ENERGY SOURCE</b>
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41	5.10.	: ` It will often be necessary to enclose a movable section of CABLE in a flexible CONDUIT <i>or sleeve</i> to ensure it meets the separation requirements from other services'.
42	5.11.1 a	(a) For all types of CABLES, using suitable <i>insulation displacement</i> connectors, joiners, compression fittings or other devices meeting the requirements of AS/CA S008.
43	5.11.1 b	<del>(a) For twisted pair CABLE, by one of the methods described in Item (a) or by twisting and soldering of conductors.</del>
44	5.11.2	The CABLE joint shall be suitably constructed, enclosed, positioned, and supported to prevent accidental disturbance, <i>mechanical damage</i> and the ingress of dust <del>or</del> , moisture, <i>or vermin</i> .
45	5.12.1	All telecommunications terminations shall be enclosed or located to prevent unintentional contact with ES2 and ES3 <del>by a person who is not doing CABLING WORK</del> . <i>any person</i> .
46	5.12.1 note	Note: ES3 should only be accessible by suitably <del>qualified</del> <i>SKILLED PERSONS</i> .
47	6.1.1	<i>customer lightning protection</i>
48	6.1.1	<i>pits (unless for cable hauling purposes only);</i>
49	6.1.1	<i>cable joints /access points</i>
50	6.1.1	<i>Earth electrodes</i>
51	6.1.1	...that is associated with any CABLE, <i>marker tape, or conduits</i> that contains ELECTRICALLY CONDUCTIVE <i>or active</i> ELEMENTS <b>shall not</b> be placed in a location where the EPR <i>contour</i> may exceed 430 V a.c. under power system fault conditions, except as part of an engineered solution in accordance with Clause 6.1.3.
52	6.1.1	<del>.If a BUILDING is only supplied by 230 V a.c. single phase power or 400 V a.c. three phase power, there will be no need to consider EPR unless the proposed installation is within the EPR HAZARD ZONE of an HV SITE, as determined in the document described in Clause 6.1.3.</del>
53	6.1.2	The CABLING PROVIDER <b>shall</b> <del>check confirm</del> with the power utility as to the extent of the EPR HAZARD ZONE a
54	6.1.2	(a) in or near a power generating station, <i>power transmission substation</i> or power <i>zone s</i> ubstation ;
55	6.1.2	<del>(a) near an HV transformer or SWER transformer; or in or near any HV SITE located in an area of high soil resistivity (e.g. rocky or dry, sandy terrain).</del>
56	6.1.3	Where an installation cannot be placed in a location where the EPR hazard is less than <i>the nominated</i> 430 V a.c <i>contour</i> ., the installation <b>shall not</b> proceed unless on the basis <i>of</i> :
57	6.1.3	· <i>Of - a design certified by a skilled person i.e qualified electrical engineer, as complying with the principles of AS/NZS 3835.1. or</i>
58	6.1.3	· <i>Of passive infrastructure installations, where the assessment using the 1000v contour reference complying with AS/NZS 3835.2 Table A2, that provides an approximate guide to the extent of the hazard zones that specifically apply in Australia.</i>

59	6.1.4	<i>Where carrier plant or equipment may be affected by an EPR hazard, <del>The</del> the relevant CARRIER shall be notified in writing of an installation proposed under the conditions of Clause 6.1.3 before the installation proceeds.</i>
60	6.2.3	<i>Where carrier plant or equipment may be affected by an EPR hazard, <del>The</del> the relevant CARRIER shall be notified in writing of an installation proposed under the conditions of Clause 6.1.3 before the installation proceeds.</i>
61	7.1.1	<i>'Many liquids, gases, vapours, dusts, and flyings such as solid particles and fibres that are generated, processed ....'</i>
62	7.1.1	<i>Pits, access holes, manholes and tunnels</i>
63	7.1.2.2.3	<i>a mixture with air of combustible dusts, <del>fibres</del> or flyings such as solid particles and fibres in cloud form. In such cases, HAZARDOUS</i>
64	7.1.3.3 a	<i>(a) any CONDUIT that terminates in a HAZARDOUS AREA, <del>including within any</del> whether in a pit, draw box, ENCLOSURE or other CABLE access point, shall be sealed against the transmission of any gas or liquid from the HAZARDOUS AREA to any non-hazardous area; and</i>
65	7.1.3.3 b	<i>(b) any CONDUIT located within a HAZARDOUS AREA <del>shall not contain any discontinuity</del>, shall be continuous without any union, coupling or other fitting between the boundaries</i>
66	7.1.3.3 c	<i>Pits, draw boxes, ENCLOSURES or other CABLE access points, <b>should not</b> be installed in a hazardous area</i>
67	7.1.3.5.3	<i><del>Where any</del> All metallic pathways, supports, CONDUITS, TRUNKING OR ENCLOSURES, <del>are</del> located within or above a HAZARDOUS AREA, they should be equipotential bonded to the protective earthing (PE) system to minimise the risk of shock, static discharges and <del>of</del> voltage <del>differences-differentials</del>, that may result in arcing or sparking if metallic services or parts are accidentally bridged</i>
68	7.1.3.6 a	<i>(a) The CABLE <del>shall not contain any discontinuity</del> be a continuous length between the boundaries of the HAZARDOUS AREA or between a termination point that complies with Clause 7.1.3.7 and any non-hazardous area.</i>
69	7.1.3.6 b	<i>Any CABLE that contains ELECTRICALLY CONDUCTIVE ELEMENTS which is passing through or above a HAZARDOUS AREA should be protected against mechanical damage (e.g. impact, vermin) or environmental damage (e.g. heat, UV) that may result in arcing or sparking Important consideration due to insulation damage commonly caused by vermin, rats, birds ants ...</i>
70	7.1.3.6 b note 1	<i>CABLE damage has the propensity to give rise to sparking or arcing that may be <del>incendiary-</del> flammable, and that cable or other burning components may fall into the HAZARDOUS AREA if <del>the</del> that CABLE is -installed outside, <del>but</del> above, the HAZARDOUS AREA.</i>
71	7.1.3.6 b note 2	<i>Mechanical protection of the cable may be provided in the form of a robust BUILDING protrusion or recess, a cover guard, or <del>may be provided</del> by installing the CABLE in suitable CONDUIT.</i>
72	7.1.3.6c	<i>'... surge suppression should be installed <del>in</del> on the CABLES -conductors outside the HAZARDOUS AREA, to reduce any overvoltages to a level that would significantly ...'</i>

73	7.1.3.6c note 1	Overvoltages have the propensity to give rise to sparking that may be incendiary and that may fall into the HAZARDOUS AREA if the CABLE is installed <del>outside, but</del> outside or above, the HAZARDOUS AREA.
74	7.1.3.7	'... in Clause 7.1.2 unless <del>they are</del> selected and installed in accordance with ...'
75	7.2.1.1	Telecommunications CABLING in a DAMP LOCATION shall <del>be of such a type or</del> suitable for the conditions and task (refer to manufacturers specifications) and
76	7.2.1.2	installed in such a manner to prevent the ingress of moisture.
77	7.2.2.1 b	<del>the presence of moisture and condensation, and the</del> consequential risk of corrosion due to electrolysis, is high due to the presence of moisture and condensation.
78	8.2.2.b	) tied to the ceiling hanger rods; <del>or -</del>
79	8.2.2 c	(c) Tied another services support system
80	8.2.2 note	the ceiling space. <del>or should be</del> secured directly to the u
81	8.4	An electrically conductive support system <del>may should</del> be <del>CONNECTED</del> bonded to Bonding is the correct word to be used here
82	8.6	<del>CONDUITS, trays and TRUNKING shall have all sharp edges removed from their CABLE bearing surfaces. All surfaces of the cable tray, duct, conduit or trunking shall be free of burrs, sharp edges or projections that can damage cable insulation. Disturbed or damaged protective coatings shall be reinstated with a protective paint coating.</del>
83	8.7	'.... not be installed with or above ...'
84	9.2.1	...and ELV power cables to protect the telecommunications integrity, and so as not to impede access to, or repair of, the other service.
85	9.2.2 (a) 1	... for CABLE, CONDUIT or TRUNKING, a minimum distance of 150 mm except at either crossings, within wall cavities, or shared TRUNKING. <del>where S s</del> separation by a suitable barrier or heat insulation, as <del>appropriate, is appropriate is</del> acceptable; and
86	9.2.2 (b)1	(i for CABLE, CONDUIT or TRUNKING, a minimum distance of 150 mm and in accordance with <del>the relevant requirements of</del> Clauses 7.1.3.3 to 7.1.3.6; and
87	table 2 note 1	If the optical fibre CABLE contains any ELECTRICALLY CONDUCTIVE ELEMENTS (e.g. a metallic <del>strengthened</del> strength member, armouring or tracer), it is to be treated as a metallic CABLE ( <del>i.e. a CABLE WITH ELECTRICALLY CONDUCTIVE ELEMENTS</del> ).
88	table 2 note 2	If the CABLES are separated by a barrier of durable insulating material or metal ( <del>including ENCLOSURE or within a in</del> CONDUIT), no further separation is required unless the CABLES are within 50 mm of any <del>securing</del> face of BUILDING framework structure that may be screwed or nailed. .
89	table 2 note 3	against accidental contact with ELV or LV electrical connections by effective means (for example, an insulated barrier, a shield, shroud or suitable distance). The CUSTOMER CABLING connections are to be separated from ELV/LV electrical connections by at least 150 mm or <del>separated</del> by ..
90	table 2 note 9	These are the recommended minimum separation distances to ensure compliance with Clause 9.2.1 and to provide adequate clearance to enable installation or access to the telecommunications CABLING.
91	9.3.2	, '... rigidly fixed barrier either of durable insulating material, or metal earthed ...'

92	9.3.3	... CABLE except <del>for when</del> sub -ducting of CABLES carrying ....
93	9.5 b	(a) LV or HV CABLE is fitted with an earth leakage circuit breaker (RCD-Residual Current Device) that is appropriate to the site requirements.
94	11.1.4.a	(a) optical fibre CABLES <b>without metallic components</b> carry appropriate markings or labelling to distinguish them from metallic CABLES and CABLES containing other services (e.g. AC MAINS power); <b>Note that steel wire armoured or composite optic fibre cables may exist.</b>
95	11.1.5.5	label
96	12.5 d	(d) <del>————</del> All surfaces of the enclosure shall be free of burrs, sharp edges or projections that can cause injury or damage cable insulation. Disturbed or damaged protective coatings shall be reinstated with a protective paint coating. <del>The ENCLOSURE shall be free of exposed sharp edges.</del>
97	13.3 d	(d) <b>Shall be readily accessible</b>
98	13.4 h	<b>Within a fire control room</b>
99	13.4 i	<b>below an electrical meter panel.</b>
100	13.4 j	<b>Where the MDF frontal clearance from a fixed electrical switchboard or meter panel is less than 1000mm or 600mm from the swing arc of a door or hinged panel.AS/NZS 3000 2.10.2</b>
101	13.6	<b>The MDF shall not be installed where it impedes operational access to, or encroaches on the safe separation from other services e.g electrical switchboards (AS/NZS 3000)</b>
102	13.6	<b>The MDF shall be located so that the access to it is not obstructed by the structure or contents of the building or by fittings and fixtures within the building.</b>
103	13.7	<b>The highest terminal or SOCKET of a wall-mounted MDF shall not be greater than 1800 mm above finished ground ,<del>or</del> floor or permanent work platform level.</b>
104	13.7.2.1	<b>The highest terminal or SOCKET of a wall-mounted MDF shall not be greater than 1800 mm above finished ground ,<del>or</del> floor or permanent work platform level.</b>
105	13.7.2.2	<b>The highest terminal or SOCKET of a wall-mounted MDF shall not be greater than 1800 mm above finished ground ,<del>or</del> floor or permanent work platform level.</b>
106	13.8	<b>Exit or egress from the MDF room shall not obstructed by the structure or contents of the building or by fittings and fixtures within the building</b>
107	13.12	(a) order from the lowest module position (unless clearly labelled otherwise), starting from numeral '1'.
108	14.1	<b>. A CARRIER may <del>or may not use an NTD or may only use an NTD in certain</del> choose to use an NTD dependant upon the circumstances.</b>
109	14.3	Apart from <b>testing</b> activities described
110	14.4	(a) of the fault <b>as soon as reasonably practical.</b>
111	15.2.1	(a) <del>————</del> provided with mechanical protection that prevents access to live parts by <del>a person</del> any ordinary or instructed person <del>who is not doing CABLING WORK; OF</del>

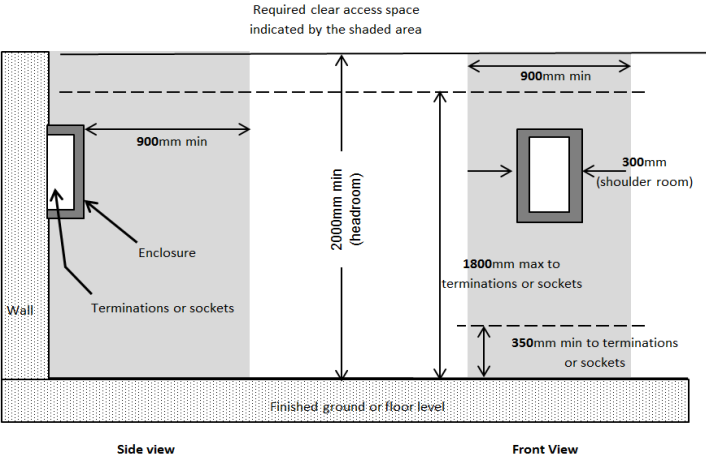
112	15.2.2	A SOCKET capable of carrying an ES1 or ES2 circuit with contacts that may be touched by a finger, <del>which is</del> should not be located in PREMISES which is frequented by small children (e.g. a kindergarten or child care centre) <del>should be unless—</del>
113	15.4.1	, ... the SOCKET <del>at of</del> the first TELECOMMUNICATIONS OUTLET CONNECTED to <del>that e</del> LINE , ...
114	15.5.1 note	Conductors of cabling that is connected to a movable TO should be flexible and multi-strand, not rigid or single core
115	15.6.1	) <del>stranded-flexible steel wire; or</del>
116	15.6.1	Cables should be held firmly to the support system without undue pressure being exerted on cable sheaths to the point of cable deformation
117	15.6..1 note	Note: the TO shall be supported so that there is no tension upon the cabling of the TO
118	16.1 note 1	1: <del>There is no requirement in this Standard to change the CABLE type where an underground or aerial CABLE enters a BUILDING. However, any</del> Any CABLE used within the BUILDING past the first CABLE connection point (e.g. DISTRIBUTOR) should meet Clause 5.6.4 of AS/CA S008 unless that CABLE will exit the BUILDING as OUTDOOR CABLING (e.g. run underground or aerial to another BUILDING) or the use of underground type CABLE is required by Clause 16.8.
119	16.1 note 3	Note 3: Any cables that do not comply with the minimum recommended in Clause 5.6.4 shall be either; - Terminated inside the building within 2 m of the point of internal penetration of the external fire barrier(e.g. floor/ceiling/wall) o rAny length exceeding 2 m is installed within trunking or conduit that is considered as a fire barrier in accordance with local fire regulations.
120	16.2 note 2	<del>The requirements of the BUILDING CODE may apply.</del> Where fire-stopping is required by the National Construction Code (NCC), penetrations of walls, floors and ceilings shall be treated in accordance with that Code.
121	16.2 note 3	Note 3: The installation of fire-stopping materials shall be performed by a skilled person.
122	16.4.1	... length from the HV single- core CABLE ...
123	16.4.2	...entire length from the-HV multi -core
124	16.7	Note: the cabler shall ensure that a suitable covering strip or enclosure run on the surface of the floor does not introduce a hazard e.g tripping
125	16.8	Note: Water may enter floor conduits during construction activities and remain in situ for the lifespan of the conduit
126	17.3	. optical fibre CABLE with non-metallic <del>strengtheners</del> ). Strength member
127	17.5 note	Note: Cables may experience water immersion from condensation build-up, if installed within surface duct or trunking that passes from outdoors to indoors with a notable temperature variant.
128	17.6 (d)	an inductive loop ( <del>often termed a drip loop</del> )(typically 3 turns of CABLE
129	18.1.1 note 2	Before entering a pit or ACCESS HOLE, the CABLING PROVIDER should <del>check it test</del> for the presence of dangerous gases <del>and reptiles and</del> check for the presence of contaminants, reptiles, insects or objects (e.g. chemicals, stagnate water, snakes, spiders, syringes).
130	18.1.2 a	(a) protected by suitable guards, bollards or barriers that prevent <del>entry passage</del> of vehicles into the area containing the pit or ACCESS HOLE; or (b) installed or constructed in a manner strong enough to withstand the type of foreseeable traffic in the area. (c) Has a lid rated at Class in accordance with AS3996
131	18.1.3 a	(a) protected by suitable guards, bollards or barriers that prevent <del>entry passage</del> of the load to the area containing the pit or ACCESS HOLE; or

132	18.1.4.1	CONDUIT or CABLE should only enter the ends (short sides) of any pit, <b>in order to prevent bend radius compromise and for ease of hauling.-</b>
133	18.1.4.2 a	(a) spaced at least 50 mm above the inside bottom surface of the pit to form a siltation trap <b>(in the pit base)</b> , to prevent silt <b>and sludge</b> entering the CONDUIT and to enable the pit or ACCESS HOLE to be cleared of silt <b>and contaminants</b> when necessary;
134	18.1.4.2 c	the correct size to ensure a firm CONDUIT fit to minimise <b>entry of contaminants, vermin and silt into</b> <del>siltation</del> of the pit;
135	18.1.4.2 d 1	(i) highly reactive soils where allowance should be made for longitudinal movement of the CONDUIT by extending the CONDUIT at least 50 mm, <b>but no more than 100 mm, into the pit or ACCESS HOLE; or</b>
136	18.1.4.2 d 2	(i)——areas where ants or termites are particularly aggressive, in which case any CONDUIT that runs to a BUILDING should be extended at least 50 mm, <b>but no more than 100 mm, into the pit or ACCESS HOLE to allow the application of a suitable ant-proof sock; and</b>
137	18.1.4.2 note	...the surface around the pit or ACCESS HOLE to sink or collapse, forming a trip hazard, <del>or</del> a pothole <b>or create an entry point for vermin such as snakes, spiders and ants</b> . Similar displacement can occur where a CONDUIT end is left uncapped in ...
138	18.1.4.3a	the CABLE should be installed into a CONDUIT <del>for</del> <b>starter for</b> at least 300 mm ....
139	18.1.4.3d	<b>The pit should be labelled to indicate this conduit entry is a ‘starter’ only and that the cable is direct buried.</b>
140	18.1.4.4	... plugged within the pit or ACCESS HOLE to inhibit the entry of <b>contaminants</b> , fluid, gas, insects or vermin ...
141	18.1.4.5 a	CONDUITS running between pits or ACCESS HOLES should not be plugged or sealed, <del>to allow</del> <b>allowing</b> natural drainage of water <b>and contaminants</b> to the lowest pit or ACCESS HOLE.
142	18.1.4.5 c	<b>A conduit running downhill should enter a haul pit within 5m of a building entry to allow egress of water and contaminants</b>
143	18.1.7 b	illustrated instructions for operating/ <b>opening</b> and maintaining the cover and any parts or mechanisms associated with it, <b>if the cover is not intended to opened using the typical Australian telecommunications pit key.</b>
144	18.1.7 c	<b>the load rating of the pit lid in accordance with AS3996</b>
145	18.3.1 b note	<b>Note. Traceable marker tape with a conductive strip should not be installed in or through EPR hazard zones or HV sites.</b>
146	18.3.5.1 a	(a) be designed and installed such that CABLES may be drawn through them between access points safely and without <b>with minimal stress or</b> damage to any CONDUIT or any CABLE;
147	18.3.5.2	No more than three 90° CONDUIT bends, or equivalent, should be installed between <b>any two</b> access points and should be sized in accordance with Table 3.
148	18.3.5.2 note	<del>Bends</del> <b>Underground bends or sweeps</b> should be prefabricated and not formed in the CONDUIT by the application ...
149	18.3.5.2 note	than 130 times the nominal inside diameter of the CONDUIT. <del>Such curves do not count as bends in applying the three bend limit.</del>
150	18.3.5.3	a pit, ACCESS HOLE, <b>an above ground enclosure</b> , or an aboveground CONDUIT termin ...
151	18.3.5.4 a	free of snag points by cutting the end of the CONDUIT at a right angle to the axis of the CONDUIT and removing all burrs and sharp edges <b>from within and outside of the conduit</b> by using a file or scraper; and
152	18.3.5.4 c	<b>Solvent adhesive shall be applied around the whole circumference of the conduit end to prevent the ingress of water and ants</b>



153	18.3.5.4 d	Solvent adhesive shall be cleared from the internal surface of a conduit or bend. Dried solvent may form a sharp edge or point that could damage cables during hauling
154	18.4 note 2	... so as to minimise the adverse effect on CABLE performance and to prevent water or moisture <del>leaking</del> -ingress into joints and terminations that may cause corrosion problems. Moisture ingress into joints and terminations may draw that moisture within the conductor insulation allowing passage of moisture between conductor and conductor insulation, causing conductor, connector or signal degradation
155	18.5 b	have access points appropriately located or sealed to prevent the ingress of moisture, contaminants and vermin; and
156	18.5 c	(c) be appropriately installed or plugged when entering a BUILDING to prevent the passage of contaminants, fluid, vermin or gas into the BUILDING from any pit or ACCESS HOLE.
157	18.6.2	... top of the CABLE OR CONDUIT, unless the soil conditions preclude a depth of 300 mm, e.g. solid rock <del>or</del> , shale, or crossing another service, in which case the CABLING may be installed in accordance with one of the following methods:
158	18.6.2 note	an EPR HAZARD ZONE may extend the hazard zone. In such cases, the installation should only proceed on the basis of an engineered design prepared in compliance with the relevant code agreed <del>between the CARRIER and</del> with the power utility. Refer to Clause 6.1.
159	18.11	When installing or repairing underground CUSTOMER CABLING, the CABLING PROVIDER shall comply with the relevant State or Territory regulations for working near underground utility services such as HV POWER cables, HV assets, gas pipelines
160	19.4 d	Shall be fit for purpose and suitable for the environment e.g. non corrosive for coastal installations
161	19.5.2	Aerial CUSTOMER CABLING shall not be attached to any pole, building attachment or structure carrying an aerial power line unless the owner of the pole or structure has authorised the attachment
162	19.5.2 note	Before any CABLE is attached, the pole or structure may need to be assessed by a skilled person to ensure it is capable of supporting the additional dynamic load.
163	19.5.3	Attachment to poles or structures carrying HV POWER lines exceeding of 66 kV or higher
164	19.5.3	Aerial CUSTOMER CABLING shall not attach to a pole or structure carrying an aerial power line of 66 kV or higher <del>exceeding 66 kV</del> .
165	19.5.4	Attachment to poles or structures carrying HV power lines not exceeding less than 66 kV
166	19.5.5	shall not attach to a pole or structure carrying an HV POWER line less than 66kV unless
167	19.5.6	Aerial CUSTOMER CABLING shall not cross over or under an aerial power line exceeding 330 kV
168	19.5.6 note	Where it is necessary for CUSTOMER CABLING to cross an aerial power line exceeding 330 kV, the CUSTOMER CABLING should be installed underground for at least 50 m each side of the power line at an angle as near as practicable to 90° to the power line route. This installation shall consider EPR influences in accordance with appendix H
169	19.5.7.1	Aerial CUSTOMER CABLING may cross under aerial power lines not exceeding 330 kV at poles/structures or in span under the following conditions
170	19.5.7.2 a	on separate BEARERS <del>or</del> and catenary supports and
171	19.5.8.2 b	shall be insulated or shrouded to prevent accidental personal contact with the BEARER by <del>an a electrical</del> skilled worker accessing the power line or another service; and
172	20.5	An earthing or bonding connection shall not be made to any equipment, CABLING, earth electrode or any earthed object that is located within an EPR likely HAZARD ZONE.
173	20.7	Where a connection to PROTECTIVE EARTH is specified for CUSTOMER CABLING OR CUSTOMER EQUIPMENT in this Standard or elsewhere, it shall be CONNECTED <del>in</del> by a skilled person in accordance with one of the following

174	20.7 note 1	A PROTECTIVE EARTHING CONDUCTOR is part of the electrical installation and usually needs to be installed by a <b>Skilled person</b> (licensed electrical worker).
175	20.9.2a	(a) The conductor <b>connection shall</b> be secured by means of a <del>serew</del> constructional bolt (metal-thread) or similar terminal arrangement, either directly or using a CABLE LUG. <b>Note: tech screws shall not be used for the termination of conductors.</b>
176	20.9.2f	<b>Strands of the conductor shall not be cut away to enable fitting into a lug or termination link</b>
177	20.9.2g	<b>Cable lugs used shall be fit for purpose</b>
178	20.9.3	The earthing/bonding bar or terminal <b>shall</b> be enclosed or located <b>in a position <del>to</del> that prevents</b> unintentional contact by <del>a-any</del> person <del>who is not doing CABLING WORK.</del>
179	20.10.1.2	Where a soldered connection is used, it shall be made such that the conductors are retained firmly in position independently of the solder, e.g. by crimping in a metal ferrule, <b>crimp link</b> or, for smaller conductors of not more than seven strands, twisted together.
180	20.10.1.3	Any clamped connection <b>shall</b> be made so that the conductors are securely retained between metal surfaces that are shaped or arranged to prevent spreading of any conductor strands. <b>Ensure that clamps are fit for purpose for the different metal types being clamped</b>
181	20.10.1.4 c	<b>the connector shall be fit for purpose for the size of the conductors being connected</b>
182	20.10.1.5	... being joined or coupled are securely retained within a suitable <b>sized</b> ferrule that is crimped using a tool designed for the purpose
183	20.10.2	All earthing or bonding conductor joints and couplings <b>shall</b> be insulated or housed in an insulated ENCLOSURE <b>and protected from environmental influences.</b>
184	20.11.2.4 note	The resistance <del>may should</del> be measured using a suitable instrument or may be calculated according to the length and size of the bonding conductor using Table 6.
185	20.19	A metallic CABLE tray, CONDUIT, TRUNKING system, distribution frame, backmount, ENCLOSURE, catenary support or the steel wire armouring of an SWA CABLE, <del>may should</del> be earthed or unearthed, depending on operational requirements
186	APP D	<b>INFORMATIVE)</b>
187	App D note 3	<b>Note 3: The MDF or NTD should not be mounted below a switchboard or meter panel.</b>

188	figure D2	 <p>Required clear access space indicated by the shaded area</p> <p>900mm min</p> <p>900mm min</p> <p>2000mm min (headroom)</p> <p>300mm (shoulder room)</p> <p>1800mm max to terminations or sockets</p> <p>350mm min to terminations or sockets</p> <p>Finished ground or floor level</p> <p>Side view</p> <p>Front View</p>
189	figure D4 note 6	<p>Note 6: The MDF or NTD frontal clearance from a fixed electrical switchboard or meter panel shall be a minimum of <b>1000mm or 600mm</b> from the swing arc of a door or hinged panel. <a href="#">AS/NZS 3000 2.10.2</a></p>
190	H.1.1	<p>Interference from an HV POWER system may be described as hazardous or non hazardous. Hazardous interference may cause injury to persons or damage to equipment, while <del>non</del>- hazardous interference may affect service reliability (network integrity) and quality (e.g. noise). It is therefore essential to ensure that any interference is avoided or reduced to an acceptable level</p>
191	H.1.1 Note 2	<p>: Some optic fibre cables such as steel wire armoured and composite cables may contain conductive elements.</p>
192	H 2.1	<p>HV installation earthing system. This could create a hazard for a person in the EPR hazard zone who may be bridging the voltage gradients within the EPR hazard zone with their body</p>
193	H 2.1	<p>... to a distant or remote earth, such as ...</p>
194	H.1.1	<p><a href="#">The types of electrical hazards associated with EPR</a></p>
195		
196		<p><a href="#">Step potential – the voltage difference between the feet of a person near an energised grounded object e.g and earth electrode</a></p>
197		
198		<p><a href="#">Touch potential – is the voltage difference between the energised object and a person in contact with the object.</a></p>
199		
200		<p><a href="#">Transfer potential – is where conductive materials (uninsulated pole stays, metal fences, metal pipes, guard wires and conductive tapes) extend beyond an EPR hazard zone, may transfer the hazardous voltage some distance from the HV asset.</a></p>
201		
202		

203		<u>Insulation breakdown in telecommunication and electrical systems - If the insulation of the telecommunications cable sheath and conductors break down or are damaged, a hazardous voltage may be impressed on the conductors in a cable passing through an EPR hazard zone</u>
204		
205		
206		<u>Breakdown of active component in telecommunications equipment - Overvoltages and overcurrents can affect equipment immediately or in an accumulative manner. Where there is nearby electrical infrastructure of 66kV or higher HV transmission system towers or conductive poles, an extended hazard zone should be applied to protect equipment.</u>
207		
208		
209		<u>Low frequency induction – refer 6.2</u>
210		
211		<u>Lightning strike - EPR of the local environment can occur when lightning strikes. Refer 17.6 and Appendix N</u>
212		
213		<u>Single wire earth return(SWER) systems – comprise of a single-phase conductor, with the return current returning to source via the physical earth. ). HV faults may be of a longer duration than is typical of HV installations; which together with high earth resistance may cause hazardous EPR.</u>
214	H.2.2	<u>A possible EPR problem may be identified by the presence of HV power poles, towers, transformers, etc and other assets. and, hence, the likely presence of ...</u>
215	H.2.2	<u>Possible-Likely</u> EPR hazards are associated with the types of HV SITES described
216	H.2.3	Note however that power generating stations, <u>large transmission and zone</u> substations , SWER
217	H2.3 note	<u>Note Further assessment guidance is listed in Table A2 of AS/NZS 3835.2</u>
218	Table H1	Steel lattice tower (220 kV and higher) <del>40m</del> –95m (Note 1)
219	Table H1	Metal or concrete pole (220 kV and higher) <del>40m</del> – 95m
220	Table H1	· Steel lattice tower; or · wooden pole with down conductor to earth electrode (66 kV and 132 kV) <del>16m</del> –40m
221	Table H1	· Metal or concrete pole; or • wooden pole with down conductor to earth electrode. (66 kV and 132 kV) <del>16m</del> – 40m
222	Table H1	Wooden pole with pole-top switch and both of the following:-• an insulating (e.g. timber) section in the down rod; and • no earthing conductor extending up the pole above the handle <del>–2m</del> 3m no EPR hazard note 2
223	Table H1	· HV wooden pole without down conductor to earth electrode; or • any pole that only supports LV POWER lines <del>1m</del> – 3m no EPR hazard

224	Table H1 note 2	In this case, there is no HV earth and therefore no EPR hazard. However, <del>13</del> m is the recommended minimum operational clearance to enable pole replacement with minimal disturbance of the telecommunications <del>pits and</del> CABLING. <u>However the local Power Authority may permit a reduced clearance.</u>
225	Table H1 note 5	<u>Personnel shall stay clear of telecommunications infrastructure and power utility plant, when power personnel are conducting work, where a temporary down conductor to earth (operational earth) has been installed</u>
226	Table H1 note 6	<u>: Personnel shall stay clear of telecommunications infrastructure or power utility plant when power utility personnel are operating pole top switches.</u>
227	Table H 2 (title)	<b>Typical EPR hazard zones associated with power <u>generating stations, transmission substations, zone substations, padmounts and transformers</u></b>
228	Table H2 note 2b	(a) the installation is part of an engineered design in accordance with Clause 6.1.3- <del>and AS/NZS 3835.1</del>
229	Table H2 note 3	<u>Personnel shall stay clear of carrier and power utility plant, when power personnel are conducting work, where a temporary conductor to earth (operational earth) has been installed.</u>
230	H.2.4.1 (f) i	(i) pits or ACCESS HOLES. <u>Unless for cable hauling purposes or for conduits, change of direction or transition</u>
231	H.2.4.2	Only plastic-sheathed CABLES, <del>preferably accommodated</del> in <u>continuous</u> rigid plastic CONDUIT, may pass through an EPR HAZARD ZONE.
232	H.2.4.2	. The installation of pits, ACCESS HOLES and draw boxes for <del>drawing hauling</del> in (not jointing) CABLES is also permitted in an EPR HAZARD ZONE. H.2.4.2
233	H.2.4.3	<u>Optic fibre connectivity is preferred for all HV sites. The fibre optics should isolate personnel and equipment within the HV site from any remote earth</u>
234	H.2.4.3	<u>Wireless or satellite technologies are also an option when optic fibre is neither physically or commercially viable.</u>
235	H5	... earthed environment by using <u>fit for purpose</u> electrically ...

comment	assessor
Suggest that 'informative and 'recommended ' are entered into the definitions, as this is being wrongly interpreted by engineers and techs as 'informative' as not being necessary to know	Lindon Haigh
Suggested deletion. This standard refers to 'carrier' although it is excluded here . Point of discussion or opportunity to refer back to AS/CA C524 and the like. I note that the carrier is not a specific exclusion from other related documents such as AS/NZS 14763.2 and AS/NZS 3084. It would be beneficial to the industry not to specifically exclude the carrier, but not to include either. That will leave interpretation of cabling rules open for application	Lindon Haigh
Suggest that this preamble sentence be kept brief. Delete text as indicated i.e. The context is not lost	Lindon Haigh
Why would this not be mandatory clauses, especially in consideration of the 'safety of the Installation'	Lindon Haigh
Suggested insertion as crosstalk is just one problem.	Lindon Haigh
to be consistent with the content of this document	Lindon Haigh
as every person is at risk, not just ordinary persons.	Lindon Haigh
An extremely important inclusion in relation to equipment placement and enclosures within EPR hazard zones. This definition concurs with insertion of 'accessible' in AS3000 2018	Lindon Haigh
suggested correction to reflect the usual industry reference and jargon.	Lindon Haigh
There is broad industry confusion between 'bonding and earthing', as there is a distinct difference between the terms bonding and earthing.	Lindon Haigh
"Is' is a bit firm, fits with continuously but does not fit with frequently or occasionally	Lindon Haigh
There is broad industry confusion between 'bonding and earthing', as there is a distinct difference between the terms bonding and earthing.	Lindon Haigh
This insertion is the definition from AS/NZS 3835.1. Always best to concur between related standards.	Lindon Haigh
his statement limits the extent of EPR. An HV site being considered by industry, AS3835 and S009 as a power generating station, zone or transmission substation	Lindon Haigh
the end user is not always a physical person but on many occasions a mechanical enduser, such as lift monitoring, security, fire services etc	Lindon Haigh
per the following note , see line 17	Lindon Haigh
too specific could be any person.	Lindon Haigh
too specific could be any person. Refer to insertion on line 16	Lindon Haigh
to concur with AS3835.1 and for technical clarity and accuracy	Lindon Haigh

This may be the case but the bonding of facilities may in many instances be to the PE	Lindon Haigh
for technical accuracy and clarity	Lindon Haigh
extremely important to accept this suggested insertion for technical accuracy and clarity	Lindon Haigh
suggested edit for clarification	Lindon Haigh
?The sentence is indistinct and confusing. What is reasonable, and over use of the word 'type'. Needs editing for technical clarification.	
Unable to suggest an edit whilst the context is not understood.	Lindon Haigh
'Type not necessary, reads better without it.	Lindon Haigh
Not necessary in the context of the sentence	Lindon Haigh
Suggested sentence correction/ edit for reader and technical clarity.	Lindon Haigh
Suggested edit for reader and technical clarity	Lindon Haigh
Suggested edit. 'Is' is very definite especially in consideration that some tunnels and covered walkways may be exposed to extreme conditions	Lindon Haigh
suggested edit for technical clarification	Lindon Haigh
Edit for technical clarification and to align with other definitions	Lindon Haigh
Suggested insertion and edit for technical clarity.	Lindon Haigh
Suggested edit to concur with definition in AS3000	Lindon Haigh
This is work for an electrical worker and the cannot usually be installed without entry to an electrical enclosure.	Lindon Haigh
Suggested edit to concur with definition in AS3000 2018.	Lindon Haigh
Suggested insert the definition of 'reasonable ' as this word is used throughout the standards, and the WHS Act	Lindon Haigh
offer a coloured label to align with industry expectations, as warning labels are black writing on yellow background	Lindon Haigh
	Lindon Haigh
	Lindon Haigh
	Lindon Haigh

further technical clarity to align with usual industry practices	Lindon Haigh
Suggested insertion for technical clarity	Lindon Haigh
delete this section. Twisting and soldering should not be encouraged in this era, as these practices are outdated, and are often poorly executed and result in signal degradation through corrosion and high resistance jointing. this is a potential point of failure	Lindon Haigh
Suggested insertions, 'mechanical damage and vermin' are key issues	Lindon Haigh
Edited for clarity. Unintentional contact can occur through the actions of 'any person' cablier or not.	Lindon Haigh
Delete qualified: By definition a skilled person is a person with relevant education or experience i.e. qualified	Lindon Haigh
insert	Lindon Haigh
Insert additional text to align with ASNZS 3835.1 7.5.2	Lindon Haigh
Insert additional text to align with ASNZS 3835.1 7.5.2	Lindon Haigh
insert additional point	Lindon Haigh
this whole section 6.1.1 needs more work . It is not accurate	Lindon Haigh
delete this LV section Not relevant. Commentary regarding LV. Only confuses the issue. The heading of the section refers to HV only	Lindon Haigh
The industry expects confirmation from the PU regarding extent of EPR.	Lindon Haigh
Insertions to align with table H2	Lindon Haigh
Refer to appendix H Table H2. These items relate to note 2 and do not require power utility mandatory assessment	Lindon Haigh
Insertion for clarification	Lindon Haigh
edit for technical accuracy	Lindon Haigh
This is an important insertion to enable clarification of EPR assessment with the inclusion of the 1000v contour for passive infrastructure. AS/NZS 3835.2	Lindon Haigh



Edited for clarification and relevancy	Lindon Haigh
Edited for clarification and relevancy.	Lindon Haigh
Suggest the expansion of 'flyings'. Flyings is not a word that can be easily found defined in standards, nor is it a word that is used as industry jargon	Lindon Haigh
Insert new dot point Hazardous items are often present in this situation	Lindon Haigh
Suggestion the expansion of 'flyings'. Flyings is not a word that can be easily found defined in standards, nor is it a word that is used as industry jargon	Lindon Haigh
edit for clarity	Lindon Haigh
suggested edit for reader clarity	Lindon Haigh
Suggest insertion of this sentence. These items of plant are points of the installation where hazardous gases and fluids tend to accumulate, and therefore creating a hazard and a place for cable joints refer 7.1.3.6.a.	Lindon Haigh
suggested edit reads better who is they?	Lindon Haigh
Suggest the inserted edit. Discontinuity is not a word used broadly around the industry.	Lindon Haigh
Suggested clarity.	Lindon Haigh
This sentence does not read well. Suggest editing for clarity	Lindon Haigh
:This sentence does not read well. Suggest editing for clarity	Lindon Haigh
Suggested technical clarity ... surge suppression is not in the cable	Lindon Haigh

Searching for technical clarity:	Lindon Haigh
' Delete 'They are'	Lindon Haigh
Suggest breakup of this sentence for technical and reader clarity.	Lindon Haigh
break for new point	Lindon Haigh
Suggested rearrangement of sentence for technical and reader clarity	Lindon Haigh
Edited to enable insertion of (c	Lindon Haigh
introduce a new point for technical clarification	Lindon Haigh
Delete repeated word	Lindon Haigh
May is giving permission. Should be recommending that electrical bonding is performed . Note that metallic support systems should be equipotentially bonded (refer 7.1.3.5.3) for safety and signal integrity reasons	Lindon Haigh
Deleted original text and inserted appropriate updated text from AS 3084	Lindon Haigh
Technical edit so that fire cable supports are not attached to other cable supports	Lindon Haigh
Suggested edit to stress the importance of cable and signal integrity and performance	Lindon Haigh
Inserted 'either' and deleted 'where' to enable a new sentence for clarity	Lindon Haigh
Edit to keep simple	Lindon Haigh
Consistent with definition 4.2.4. Armouring is overlooked but extremely important to be confirmed for electrical bonding or EPR zone installations Suggest deleting this last sentence . Confusing and just repeating the start of the sentence	Lindon Haigh
Suggested edit for clarity. This does not read well in its current format. Wall panels and framework are different items. Have edited for technical clarity	Lindon Haigh
Suggested insertion for technical clarity Repeated 'separated' without necessity	Lindon Haigh
Suggested edit for technical clarity	Lindon Haigh
Clarify that there is the option, insert 'either'	Lindon Haigh

Suggested replace <b>for</b> with 'when' for reading clarity	Lindon Haigh
RCD is wording that is more recognisable in the field	Lindon Haigh
Suggested insertion. It is wrong to assume that there are no metallic components to optic fibre cable, especially in a campus situation where composite cables may exist	Lindon Haigh
Caution or warning labels should be black writing on yellow. Suggested update to yellow	Lindon Haigh
Deleted original text and inserted adapted appropriate updated text from AS 3084	Lindon Haigh
Suggested insert. Refer 4.2.80. Refer to AS3000 1.4.3	Lindon Haigh
Refer to BCA	Lindon Haigh
Insertion to align with electrical regulatory authorities	Lindon Haigh
Important technical inclusion AS3000 2.10.2	Lindon Haigh
Impeding other services is a big problem especially with switchboard clearances amended in AS3000 2018	Lindon Haigh
Suggested important inclusion, guide by AS 3000	Lindon Haigh
Suggested edit and insert. Refers to raised floor sections or safe work platform	Lindon Haigh
Suggested edit and insert. Refers to raised floor sections or safe work platform	Lindon Haigh
Suggested edit and insert. Refers to raised floor sections or safe work platform	Lindon Haigh
Suggested insert, adapted from AS3000 2.10.2.2	Lindon Haigh
Suggested insert of brackets to allow technical clarity of statement	Lindon Haigh
Suggested edit for clarity	Lindon Haigh
Suggested insert for technical clarity	Lindon Haigh
Suggested insert. So that the reporting is not put aside, in consideration that there maybe a degree of importance attached to that component, or there may be a safety issue present	Lindon Haigh
Suggested deletion because the mechanical protection should work whether cabling is being done or not	Lindon Haigh

Suggested edit. Makes this sentence easier to understand	Lindon Haigh
Suggested slight edits in order to be read with clarity	Lindon Haigh
Suggested technical inclusion	Lindon Haigh
Suggestion point insertion that aligns with available product in the industry.	Lindon Haigh
Suggested technical insert adapted from AS/NZS 3084 8.3	Lindon Haigh
Suggested insertion. It is imperative that the TO weight is not stressing the cable	Lindon Haigh
Suggested deletion to enable flexibility with compliant cable types	Lindon Haigh
Suggested very important technical text. Refer AS/NZS ISO/IEC 14763.2, 7.7.1.3. this is an issue that arises often without clear guidance form S009. The inserted text corrects that and rids the industry of the mythical `15m rule`	Lindon Haigh
Suggested updated text to concur with content of AS/NZS 3084	Lindon Haigh
Suggested tex insert. Firestopping is not compliant unless installed by a trained person who should certify the work.	Lindon Haigh
Insert HV just to be very clear here	Lindon Haigh
Once again a simple insert to be very clear of sentence intent	Lindon Haigh
This removes any liability for introducing a potential workplace hazard.	Lindon Haigh
Important technical point.	Lindon Haigh
I believe that strength member is the usual description and jargon	Lindon Haigh
This is a big problem in the north of Australia, and results in considerable damage and downtime	Lindon Haigh
Suggested insert as 'drip loop is industry jargon	Lindon Haigh
Suggested insertion of important technical facts.	Lindon Haigh
Suggested technical inclusions. There is confusion in the broader industry with the assumption the AS3996 also rates pits.	Lindon Haigh
Edited for technical inclusion	Lindon Haigh

Suggested inclusion to offer an justification for this rule.	Lindon Haigh
Suggested insertion for clarification	Lindon Haigh
Suggested insertion for technical clarification	Lindon Haigh
Delete this text as an impractical rule unless specified with different pit types and sizes	Lindon Haigh
Delete this text as an impractical rule unless specified with different pit types and sizes. Probably the most unlikely entry point of ants.	Lindon Haigh
Suggested insertion. Snakes just thrive on such discrete pit entries.	Lindon Haigh
Suggest edit for standard industry jargon	Lindon Haigh
Suggested insertion so there there is no expectation for a cable being within a full length or continuous conduit	Lindon Haigh
Suggested insertion. Contaminants covers all those other nasty things that are not apparent	Lindon Haigh
Contaminants must be included	Lindon Haigh
Suggested insert. Even if conduits are plugged , there can be a build up of water pressure that may enter the building	Lindon Haigh
Suggested insertion, as operating hardly applies to anything other than a mechanical system	Lindon Haigh
Suggested inclusion for confirmation of compliancy	Lindon Haigh
Suggested inclusion of important safety note.	Lindon Haigh
Technical insertion	Lindon Haigh
clarification	Lindon Haigh
inclusion for accuracy	Lindon Haigh
delete. This is wrong $3 \times 90^\circ \neq 270^\circ$ . The point make is is that $270^\circ$ is the same how ever you look at it and whether manufactured bends or a total of change in conduit direction, the stress on the cable is the same . It is impossible in in many circumstances to 'pull a cable back on itself'	Lindon Haigh
above ground housings are common use	Lindon Haigh
clarification to ensure that the task is done properly	Lindon Haigh
important technical inclusion	Lindon Haigh

important technical inclusion	Lindon Haigh
industry jargon. Hardly a leak      Suggested insertion of important technical point	Lindon Haigh
important technical inclusion	Lindon Haigh
suggested insertion of important information for clarity and accuracy	Lindon Haigh
important technical inclusion	Lindon Haigh
carrier cabling is excluded from this standard 2.1©. Hwy should the cutomer cabler be reporting to a carrier	Lindon Haigh
inserted for clarity and worth noting that HV assets generally have an underground earthing system attached,	Lindon Haigh
important inclusion given that corroded fitting under stress may be a hazard to techs and the public	Lindon Haigh
suggested technical inclusion	Lindon Haigh
suggested insertion. Pole loading determination is not a simple process	Lindon Haigh
the measurement is 66kV or higher. technical corection	Lindon Haigh
the measurement is 66kV or higher. technical corection	Lindon Haigh
clarify a technical point to concur with appendix H and other HV standards and utilities determinations	Lindon Haigh
technical clarity	Lindon Haigh
insert for technical clarity	Lindon Haigh
important technical inclusion	Lindon Haigh
this is a bit of a worry. How do we cross under <b>at</b> HV poles when attachement is not allowed in many imstances . This section need further investigation	Lindon Haigh
clarity	Lindon Haigh
important technical and safety inclusion as bearers or conductors of other services may be at different potentials. Could be an electrical worker or comms tech	Lindon Haigh
insert 'likely' as this is assumed hazard zone until assed by skilled person e.g. certified engineer or power authority.' Likely' is industry jargon	Lindon Haigh
clarity that this is a task for a skilled person. Highlighted up front in the preamble so that there is no confusion	Lindon Haigh

clarity that this is a task for a skilled person	Lindon Haigh
important technical inclusion screws are not acceptable. Concurs with AS3000 important technical inclusion as screws are not acceptable. As they may corrode due to the dissimilar metal contact, and eventually become a high resistance termination and therefore a hazard	Lindon Haigh
important technical inclusion	Lindon Haigh
important technical inclusions	Lindon Haigh
edited for clarity. Safety is for all persons, the cablers are not immune from unintentional contact	Lindon Haigh
insert as industry option and jargon. However note that soldered and twisted joints are past technology, and are points of failure	Lindon Haigh
it is important that dissimilar conductors are clamped in a bi-metal conductor, otherwise electrolysis may occur and eventually an HR joint	Lindon Haigh
important technical inclusion	Lindon Haigh
technical inclusion	Lindon Haigh
important technical inclusion	Lindon Haigh
always best to confirm with instruments to enable certification and to detect any equipotential anomalies such as HR joints and open circuits.	Lindon Haigh
Best to encourage earthing for safety and transmission signal integrity	Lindon Haigh
Delete informative. There are many in the industry refuse to acknowledge this appendix because it is deemed informative. <b>Recommended</b> gets the message across	Lindon Haigh
Mandatory with some state electrical regulatory bodies if it protrudes more than 300mm	Lindon Haigh

<p>New drawings being submitted that are more to scale. These drawings have caused many issues in the field . This drawing incorporates figure D3</p>	<p>Lindon Haigh</p>
<p>Reflects update in AS3000. A new drawing will be offered</p>	<p>Lindon Haigh</p>
<p>Edited for clarity. Confusing to read initially</p>	<p>Lindon Haigh</p>
<p>Suggested inclusion as many assume that FO has no conductive arts.</p>	<p>Lindon Haigh</p>
<p>Technical insertion as there is a distinct difference between hazard zone and zone.</p>	<p>Lindon Haigh</p>
<p>Industry jargon that concurs with AS/NZS 3835.1 &amp; .2</p>	<p>Lindon Haigh</p>
<p>Suggest inclusion of the following section to briefly describe the EPR hazards.</p>	<p>Lindon Haigh</p>
<p></p>	<p>Lindon Haigh</p>
<p></p>	<p>Lindon Haigh</p>
<p></p>	<p>Lindon Haigh</p>
<p></p>	<p>Lindon Haigh</p>
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	Lindon Haigh
Etc should never be used in a standard	Lindon Haigh
Industry jargon and standardisation	Lindon Haigh
Inserted a more accurate description	Lindon Haigh
This is the best source for assessment. Table H1 and H2 are drawn from this.	Lindon Haigh
95m using 430v contour. 6.1.1 specifically calls out the 430v contour not 1000v contour. refer table A2 ASNZS 3835.2	Lindon Haigh
95m using 430v contour 6.1.1 specifically calls out the 430v contour not 1000v refer table A2 ASNZS 3835.2	Lindon Haigh
40m using 430v contour 6.1.1 specifically calls out the 430v contour not 1000v refer table A2 ASNZS 3835.2	Lindon Haigh
40m using 430v contour 6.1.1 specifically calls out the 430v contour not 1000v refer table A2 ASNZS 3835.2	Lindon Haigh
Important inclusion for EPR options. PAs have differing operational clearances. 3m encompasses all	Lindon Haigh
Important inclusion for EPR options. PAs have differing operational clearances. 3m encompasses all	Lindon Haigh

Important inclusion for EPR options. PAs have differing operational clearances. 3m encompasses all	Lindon Haigh
Important safety inclusion for the likelihood of a temporary epr hazard zone	Lindon Haigh
Important safety inclusion for the likelihood of a temporary epr hazard zone	Lindon Haigh
Concur with industry description of particular sites	Lindon Haigh
Reference inserted	Lindon Haigh
Suggested important inclusion. During these works with a temporary down conductor, the area becomes a temporary epr hazard zone	Lindon Haigh
Suggest insertion of conditions, to concur with AS/NZS3835/2 and industry expectations	Lindon Haigh
Important insertion for technical accuracy	Lindon Haigh
Hauling is familiar jargon ... drawing is more if a USA thing	Lindon Haigh
Suggested insert. Alternative technologies to enable safe work within the HV sites. And also isolation equipment is not available for some services . Copper services connectivity to and within HV sites is being phased out	Lindon Haigh
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Fit for purpose inclusion is rather than describing each item in detail	Lindon Haigh