Mechanical and Electrical Contractors

SSE Contracting

Electrical Installation Condition Report Summary

Client Details

Client	**Spaneuro Express Ltd**
Address	2 Deerhurst Close Calcot Reading Berkshire
Post Code	RG31 7RX

Installation Tested — Report Number 871421/949032/2

Occupier	**Agilent Technologies Ltd**
Address	Voscal 1 Mobile Calibration Trailer 610 Wharfedale Road Winnersh Triangle Reading
Post Code	RG41 5TP
Area Tested	As Above

Purpose of Report

To assess the condition of the electrical installation

Condition Report Defect Summary

Satisfactory — Improvement recommended as detailed in Section 4 of this Condition Report

Code 1 (C1)	**0** Danger present. Risk of injury. Immediate remedial action required.
Code 2 (C2)	**0** Potentially dangerous - urgent remedial action required.
Code 3 (C3)	**2** Improvement recommended
Further Investigation	Any defects requiring Further Investigation will be suffixed by "F" i.e. "C2F" in the "Observations and Recommendations for Action" Section 4 of this Report.
No Code	General Observations concerning the installation
Note	In order to attain a "Satisfactory" result there must be no C1 or C2 Defects present.

Inspection and Test Date and Next Due Date

Test Date	**11-Nov-13**	Retest Period	**1 year**	Next due	**11-Nov-14**

The "Next due" date above applies provided all C1 Defects are remedied immediately.
In addition, any C2 Defects are to be remedied and/or investigated as a matter of urgency.
Any Defects identified as requiring "Further investigation" should also be remedied and/or investigated as a matter of urgency.

Electrical Installation Condition Report compiled by

Inspection Engineer	M.Viccars	Depot	Reading	Date	11-Nov-13
Reviewed by	Paul Honor	Signed		Date	19-Nov-13
NICEIC Reg No	000500 - 012				
Position	Inspection and Test Manager	Phone	0118 9126724	Fax	0118 9126729
Company	SSE Contracting				
Address	Arrowhead Road Theale Reading Berks RG7 4AH				

Electrical Installation Condition Report Summary (continued)

Extent and Limitations

Extent:

The extent of the Installation Inspected and Tested is defined on the previous page in the "Installation Tested" section. If the Inspection and Test does not extend to the entire electrical installation at that location, the "Area Tested" defines the area(s) that have been tested. The extent of any sampling applied to the Inspection and Test can be found in the Scope of Works or Specification provided at the Quotation/Tender stage and/or as agreed with the Client and subject to the Client making the Inspector aware of all parts of the Installation to be tested.

Limitations:

All "Hazardous Area" installations (potentially explosive atmospheres) are excluded from this report. Access to the equipment above 3m has not been included in line with BS7671 unless specifically stated within the agreed Specification. Any other Limitations imposed during the Inspection and Test, specific to parts of the Installation, will be identified in the "Observations and Recommendations for Action" Section 4 of this Condition Report.
The following Limitations have been applied to the Condition Report overall.

1	This Inspection and Test has been carried out in accordance with BS7671 as amended. Cables concealed within Trunking and Conduits, or Cables and Conduits concealed under floors, in inaccessible roof spaces and generally within the fabric of the Building have not been inspected.

Engineers Comments

Not Applicable

This Condition Report comprises the following:

Section 1	Electrical Installation Condition Report Summary
Section 2	Installation details
Section 3	Schedule of Items Requiring Inspection - Summary
Section 4	Observations and Recommendations of Action to be Taken
Section 5	Index of Equipment Reports
Section 6	3 Equipment Reports - Circuit Details and Test Results [1] to [3]

Note: This report must be read in its entirety and sections should not be read in isolation

Installation Details

Section 2

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Installation History

Nature of Installation	Mobile Calibration Trailer
Estimated age of the original installation	Unknown
Evidence of alterations/additions	Unknown
Date of previous inspection	Nov-2012
Previous records held by	Agilent Technologies
Previous Report Ref. Number	809052/949032/1

Supply Characteristics

Type of Electrical System	Unknown
Number and type of live conductors	3 Phase 4 Wire (3 Phase & Neutral)
Nominal Voltage (U) and Frequency (f)	400 - 420 Volts 50 Hz
Maximum Demand	Unknown
External Earth Fault Loop Impedance (Ze)	Unknown
PFC (value doubled if 3 phase)	Unknown
Number of alternative supplies	None
Supply 2	
Supply 3	
External Earth Fault Loop Impedance (Ze)	
Polarity at Origin	Limitation
Phase Rotation at the Origin	Limitation

Primary Supply Overcurrent Device(s)

BS (EN)	Unknown
Type	Unknown
Nominal current rating	Unknown
Short-circuit capacity	Unknown

Earth Electrode Details

Type	Not Applicable
Location	
Resistance	
Method of Measurement	

Main Switch or Circuit Breaker

Type BS (EN)	Unknown
Number of poles	3
Supply conductor material	Copper
Supply conductor size	16 mm²
Voltage and Current rating	400 Volts Unknown

Protection against Indirect Contact

Method of Protection	A.D.S.

Main RCD Details

RCD	Voltage	Current Rating (A)	Operating Current (mA)	x1 Test (ms)	Rated Time Delay
1		Not Applicable			
2					

Earthing and Bonding Arrangements

	Required	CSA mm2	Material	Satisfactory	Location of Connection
Main Earthing Conductor		L	L		L
Water Service		L	L		L
Gas Service		L	L		L

Schedule of Items Requiring Inspection - Summary

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Status Code Key

Acceptable Condition	**No Defect noted**	**Meets the requirements of BS7671 (as ammended).**
Unacceptable Condition	**Code 1 (C1)**	**Danger present. Risk of injury. Immediate remedial action required.**
Unacceptable Condition	**Code 2 (C2)**	**Potentially dangerous - urgent remedial action required.**
Improvement Recommended	**Code 3 (C3)**	**Improvement recommended.**
Further Investigation		**Defect Codes C2 or C3 may be followed by "F". This indicates that further investigation is required to establish the exact nature of the defect i.e. "C2F".**
Limitations	**Code L (CL)**	**Limitations imposed and therefore Item has not been Inspected and or Tested.**
Not Applicable		**Section does not apply to the Installation Inspected and or Tested.**

For full details of any Defects identified please refer to Section 4 of this Condition Report

Schedule of Items Requiring Inspection - Summary	Status	
Energy Suppliers Electrical Intake Equipment	Not Applicable	
Presence of Adequate Arrangements for Parallel or Switched Alternative Sources	Not Applicable	
Automatic Disconnection of Supply (ADS)	Acceptable Condition	
Other Methods of Protection	Not Applicable	
Distribution Equipment	Improvement Recommended	C3
Distribution Circuits	Acceptable Condition	
Final Circuits	Improvement Recommended	C3
Isolation and Switching	Acceptable Condition	
Current Using Equipment (Permanently Connected)	Acceptable Condition	
Test Results	Observation	CO
Special locations - Locations containing a Bath or Shower	Not Applicable	
Special locations - Swimming Pools and Other Basins	Not Applicable	
Special locations - Rooms and Cabins containing Sauna Heaters	Not Applicable	
Special locations - Construction and Demolition Site Installations	Not Applicable	
Special locations - Agricultural and Horticultural Installations	Not Applicable	
Special locations - Conducting locations with restricted movement	Not Applicable	
Special locations - Caravan / Camping Parks and similar Locations	Not Applicable	
Special locations - Marinas and similar Locations	Not Applicable	
Special locations - Medical Locations	Not Applicable	
Special locations - Exhibition Shows and Stands	Not Applicable	
Special locations - Solar Voltaic (PV) Power Supply Systems	Not Applicable	
Special locations - Mobile or Transportable Units	Not Applicable	
Special locations - Caravans and Motor Caravans	Not Applicable	
Special locations - Operating and Maintainance Gangways	Not Applicable	
Special locations - Amusement Devices, Parks, Fairgrounds and Circuses	Not Applicable	
Special locations - Floor and Ceiling Heating Systems.	Not Applicable	

Observations and Recommendation for Action to be Taken

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Defect Code Key

Unacceptable Condition	Code 1 (C1)	Danger present. Risk of injury. Immediate remedial action required.
Unacceptable Condition	Code 2 (C2)	Potentially dangerous - urgent remedial action required.
Improvement Recommended	Code 3 (C3)	Improvement recommended.
Further Investigation		Defect Codes C2 or C3 may be followed by "F". This indicates that further investigation is required to establish the exact nature of the defect i.e. "C2F".
Limitations	Code L (CL)	Limitations imposed and therefore Item has not been Inspected and or Tested.
No Code		General Observations made by the Inspector regarding the Installation.

For full details of any Defects identified please refer to Section 4 of this Condition Report

Item	Code	Description	Fixed
General Deviations			
1		This installation is of a mobile nature and is connected to the supply via a plug and socket arrangement at whatever site it is used on. Therefore all earthing and bonding arrangements will alter from site to site.	
2		All LIVE test results shown were taken from the supply used at the time of the test. These readings will however vary from site to site according to the supply charactersitics.	
[1] DB1			
3	3	The IP rating of the enclosure is unsatisfactory. (Grommets are required to underside of the control panel to prevent ingress.)	
4	3	The method of terminating the final circuit cable into the enclosure is unsuitable. (The light switch by the door has no grommet protection where cables enter the switch box.)	
5		There was a socket with an integral RCD. The location and test results are as follows: Locker Area which operated correctly in 17.2m/Secs x 1 and 7m/Secs x 5.	
[2] DB2			
6		Earth Loop Impedance Values were unsatisfactory. (On Circuits 1L1 and 2L1 but the RCDs in the circuit will ensure disconnection times are met.)	
[3] DB2A			
7		No information was available for the maximum permitted Zs value of the MCB on Circuit 3L2.	
8		It was not possible to measure the following earth fault loop impedances: (From this equipment as circuits are fed via an isolating transformer.)	

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Report No	Asset No.	Name	Location	Fed from
[1]	A9141	DB1	Mobile Trailer	Not Determined
[2]	A9142	DB2	Mobile Trailer	Not Determined
[3]	Q16045	DB2A	Mobile Trailer	Not Determined

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Supply Cables
Length Unknown
SWA 16 mm²

DB1
Mobile Trailer

Merlin Gerin Control Panel
RCD TP&N 12 ways (total)

RCD Details BS (EN) 61008 63 A 100 mA 4 pole
Test Results 1x 18 ms 5x 16 ms
Asset No. A9141

Earthing Arrangements
PFC 2.40 kA
Earth Loop 0.21 Ohms
Cable Sheath

Supplied From Not Determined
Secondary Supply None

Circuit Schedule and Test Results

CIRCUIT			Cable		Overcurrent Device		Dis Time	Continuity Test			Insulation Test		Earth Loop	R.C.D. Test	
No Ø	Designation	Points Served Polarity	Wiring Phase mm²	Method CPC mm²	BS No Rating A	Type Rating kA	s	r1 rn Ω	r2 Ω	R1+R2 R2 Ω	L/L L/E MΩ	L/N N/E MΩ	Max Z s Zs Ω	R.C.D. Rating mA	x1 x5 ms
1 L1	Lights	8 P	T+E 1.5	B 1	60898 6	B 10	0.4	- -	-	0.35 -	- 99.9	- 99.9	6.13 0.56	-	- -
1 L2	Spare	- -	- -	- -	60898 6	B 10	0.4	- -	-	- -	- -	- -	6.13 -	-	- -
1 L3	Spare	- -	- -	- -	60898 6	B 10	0.4	- -	-	- -	- -	- -	6.13 -	-	- -
2 L1	Spare	- -	- -	- -	60898 32	B 10	0.4	- -	-	- -	- -	- -	1.15 -	-	- -
2 L2	Spare	- -	- -	- -	60898 20	C 10	0.4	- -	-	- -	- -	- -	0.92 -	-	- -
2 L3	Skt - Locker	1 P	T+E 2X 2.5	B 2X 1.5	60898 32	B 10	0.4	0.27 0.27	-	0.04 -	- 99.9	- 99.9	1.15 0.25	-	- -
3 L1	Spare	- -	- -	- -	60898 6	B 10	0.4	- -	-	- -	- -	- -	6.13 -	-	- -
3 L2	ACU Isolator Second From Top	1 P	SWA 1.5	B CS 1.5	60898 20	B 10	0.4	- -	-	0.09 -	- 99.9	- 99.9	1.84 0.30	-	- -
3 L3	ACU Isolator Third From Top	1 P	SWA 1.5	B CS 1.5	60898 20	B 10	0.4	- -	-	0.09 -	- 99.9	- 99.9	1.84 0.30	-	- -
4 L1	Spare	- -	- -	- -	60898 6	B 10	0.4	- -	-	- -	- -	- -	6.13 -	-	- -
4 L2	ACU Isolator Top	1 P	SWA 1.5	B CS 1.5	60898 20	B 10	0.4	- -	-	0.09 -	- 99.9	- 99.9	1.84 0.30	-	- -
4 L3	ACU Isolator Bottom	1 P	SWA 1.5	B CS 1.5	60898 20	B 10	0.4	- -	-	0.10 -	- 99.9	- 99.9	1.84 0.31	-	- -

Tested By	Test Date	Instrument Type	Serial No	Instrument Type	Serial No
M.Viccars	11/11/2013	Multi-tester	5682		

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Supply Cables

Length 0.20 metres
SWA 16 mm²

DB2
Mobile Trailer

Merlin Gerin Control Panel
RCD SP&N L1 phase 3 ways

RCD Details BS (EN) 61008 63 A 100 mA 2 pole
Test Results 1x 40 ms 5x 16 ms
Asset No. A9142

Earthing Arrangements

PFC Unknown
Earth Loop 1.13 Ohms
Cable Sheath

Supplied From Not Determined
Secondary Supply None

Circuit Schedule and Test Results

CIRCUIT			Cable		Overcurrent Device		Dis Time	Continuity Test			Insulation Test		Earth Loop	R.C.D. Test	
No Ø	Designation	Points Served Polarity	Wiring Phase mm²	Method CPC mm²	BS No Rating A	Type Rating kA	s	r1 rn Ω	r2 Ω	R1+R2 R2 Ω	L/L L/E MΩ	L/N N/E MΩ	Max Z s Zs Ω	R.C.D. Rating mA	x1 x5 ms
1 L1	Dado Skts - Offside, Control Panel Area	13 P	T+E 2X2.5	B 2X1.5	4293 32	C 10	0.4	0.25 0.25	-	0.42 -	- 99.9	- 99.9	0.57 0.62	30	18.7 18.7
2 L1	Skt - Near Side	4 P	T+E 2X2.5	B 2X1.5	4293 32	C 10	0.4	0.30 0.37	-	0.61 -	- 99.9	- 99.9	0.57 0.81	30	21.7 17.5
3 L1	Skts - Low Level Off Side	6 P	T+E 2X2.5	B 2X1.5	4293 32	C 10	0.4	0.19 0.19	-	0.34 -	- 99.9	- 99.9	0.57 0.54	30	64.2 25.4

Tested By	Test Date	Instrument Type	Serial No	Instrument Type	Serial No
M.Viccars	11/11/2013	Multi-tester	5682		

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Supply Cables

Length Unknown
SWA 16 mm²

DB2A
Mobile Trailer

Merlin Gerin Control Panel
RCD SP&N L2 phase 3 ways

RCD Details BS (EN) 61009 63 A 30 mA 2 pole
Test Results 1x 40 ms 5x 21 ms
Asset No. Q16045

Earthing Arrangements

PFC 1.15 kA
Earth Loop 0.20 Ohms
Cable Sheath
Integral C.P.C., 16 mm²

Supplied From Not Determined
Secondary Supply None

Circuit Schedule and Test Results

CIRCUIT			Cable		Overcurrent Device		Dis Time	Continuity Test			Insulation Test		Earth Loop	R.C.D. Test	
No Ø	Designation	Points Served Polarity	Wiring Phase mm²	Method CPC mm²	BS No Rating A	Type Rating kA	s	r1 r2 rn Ω Ω		R1+R2 R2 Ω	L/L L/E MΩ	L/N N/E MΩ	Max Z s Zs Ω	R.C.D. Rating mA	x1 x5 ms
1 L2	Skts - Low Level Off Side	6 P	T+E 2X2.5	B 2X1.5	60898 32	C 10	0.4	0.19 0.31 0.19		- 0.08	- 99.9	- 99.9	0.57 L	-	- -
2 L2	Skts - Low Level Off Side	6 P	T+E 2X2.5	B 2X1.5	60898 32	C 10	0.4	0.19 0.32 0.19		- 0.08	- 99.9	- 99.9	0.57 L	-	- -
3 L2	Control Circuit	1 P	S 1.5	B MF	60898 2	B 10	0.4	- -	-	- 0.01	- 99.9	- 99.9	L L	-	- -

Tested By	Test Date	Instrument Type	Serial No	Instrument Type	Serial No
M.Viccars	11/11/2013	Multi-tester	5682		

Schedule of Items Requiring Inspection - Detailed
Based on BS7671 (as amended)

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Defect Code Key

Acceptable Condition	No Defect noted	Meets the requirements of BS7671 (as ammended).
Unacceptable Condition	Code 1 (C1)	Danger present. Risk of injury. Immediate remedial action required.
Unacceptable Condition	Code 2 (C2)	Potentially dangerous - urgent remedial action required.
Improvement Recommended	Code 3 (C3)	Improvement recommended.
Further Investigation		Defect Codes C2 or C3 may be followed by "F". This indicates that further investigation is required to establish the exact nature of the defect i.e. "C2F".
Limitations	Code L (CL)	Limitations imposed and therefore Item has not been Inspected and or Tested.

For full details of any Defects identified please refer to Section 4 of this Condition Report

Schedule of Items Requiring Inspection - Detailed	Defect Code
Automatic Disconnection of Supply (ADS)	
Presence of distributor's earthing arrangement	
Main earthing arrangements	
Adequacy of earthing conductor size	
Accessibility of earthing conductor connections	
Main protective earthing conductor connections	
Adequacy of ADS for remote buildings	
Presence of installation earth electrode arrangement	
Provision for Lightning conductors	
Main protective bonding arrangements	
Main protective bonding connections	
Adequacy of main protective bonding conductor sizes	
Adequacy of main protective bonding conductor size where it is 6.0mm2	
Main protective bonding conductor connections	
Accessibility of all protective bonding connections	
Supplementary bonding connections	
Supplementary bonding for final circuits	
Provision of earthing / bonding labels at all appropriate locations	
Appropriate bonding clamps	
FELV	
Provision of fault protection for TT System (100mA RCD)	
Voltage Trip used for Fault Protection	
Access to the Origin of Supply for Verification of Protective Conductors	
Access to the Origin of Supply for Verification of method of Protection against electric shock	
Continuity measurement of Protective Bonding Conductor	
Other observations regarding ADS	
Distribution Equipment	
Adequacy to prevent access to live parts	
Adequacy of working space / accessibility to equipment	
Security of fixing	
Condition of insulation of live parts	
Adequacy / security of barriers	

Schedule of Items Requiring Inspection - Detailed

Occupier **Agilent Technologies Ltd**
Installation Address **Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road**
Specific Location **Not Applicable**

Schedule of Items Requiring Inspection - Detailed	Defect Code
Condition of enclosure(s) in terms of IP rating etc	C3
Condition of enclosure(s) in terms of fire rating etc	
Enclosure not damaged / deteriorated so as to impair safety	
Presence and effectiveness of obstacles	
Placing out of reach	
Position of Isolation devices	
Presence of main switch(es), linked where required	
Operation of main switch(es) (functional check)	
Manual operation of circuit-breakers and RCD's to prove disconnection	
RCD(s) provided for additional protection, where required - Includes RCBOs	
Presence of RCD quarterly test notice at or near equipment, where required	
Presence of diagrams, charts or schedules at or near equipment, where required	
Presence of non-standard (mixed) cable colour warning notice at or near equipment, where required	
Presence of alternative supply warning notice at or near equipment, where required	
Presence of next inspection recommendation label	
Presence of other required labelling (please specify)	
Examination of protective device(s) and base(s); correct type and rating (no signs of unacceptable thermal damage, arcing or overheating)	
Single-pole protective devices in line conductor only	
Protection against mechanical damage where cables enter equipment	
Accessibility of Switchgear for Operation and Maintenance due to Asbestos	
Labelling of Switchgear for Operation and Maintenance due to Asbestos	
Accessibility of Switchgear for Testing due to Asbestos	
Protection against overload current	
Correct selection of devices against fault current	
Devices for protection against Overcurrent	
Protection against electromagnetic effects where cables enter ferromagnetic enclosures	
Surge Protection Devices	
Resuscitation notices	
Emergency Lighting in switch rooms	
Smoke detectors	
Powered Smoke Detectors	
Restricted access to installation under test	
Other observations regarding Distribution equipment	
Distribution Circuits	
Sizing and suitability of Protective conductors	
Identification of conductors by colour coding	
Identification of circuit conductors	
Identification of Distribution circuits	
Cables correctly supported throughout their run	
Condition of insulation of live parts	
Non-sheathed cables protected by enclosure in conduit, ducting or trunking	
Suitability of containment systems for continued use (including flexible conduit)	
Protection against impact, compression or thermal effects	

Schedule of Items Requiring Inspection - Detailed

Occupier **Agilent Technologies Ltd**
Installation Address **Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road**
Specific Location **Not Applicable**

Schedule of Items Requiring Inspection - Detailed	Defect Code
Cables correctly terminated in enclosures	
Examination of cables for signs of unacceptable thermal or mechanical damage / deterioration	
Adequacy of cables for current-carrying capacity with regard for the type and nature of installation	
Adequacy of protective devices: type and rated current for fault protection	
Presence and adequacy of circuit protective conductors	
Coordination between conductors and overload protective devices	
Cable installation methods / practices with regard to the type and nature of installation and external influences	
Where exposed to direct sunlight, cable of a suitable type	
Cables under floors, above ceilings, in walls / partitions less than 50mm from a surface, and in partitions containing metal parts Installed in prescribed zones and not under the supervision of a skilled or instructed person	
Distribution circuit cables concealed in walls, floors & ceilings etc, require mechanical protection or RCD protection. These circuits are deemed not to be under the supervision of a skilled or instructed person.	
Provision of fire barriers, sealing arrangements and protection against thermal effects	
Band II cables segregated/ separated from Band I cables	
Cables segregated / separated from non-electrical services	
Condition of Distribution circuit accessories	
Suitability of Distribution circuit accessories for external influences	
Single-pole devices for switching in line conductor only	
Adequacy of connections within Disribution equipment	
Adequacy of connections	
Presence, operation and correct location of appropriate devices for isolation and switching	
General condition of wiring systems	
Temperature rating of cable insulation	
Line and Neutral conductors to be of equal size in all single phase 2 wire circuits, single phase 3 wire and polyphase circuits equal to or less than 16mm2	
The type of earthing used must take account of the charicteristics of the source of supply	
Provision of original design data to the Inspector	
Restricted isolation to installation under test	
Other observations regarding Distribution circuits	
Final Circuits	
Adequacy to prevent access to live parts	
Identification of final circuit conductors by colour coding	
Identification of final circuit conductors	
Wiring system(s) appropriate for the type and nature of the installation and external influences	
Cables correctly supported throughout their run	
Condition of insulation of live parts	
Suitability of containment systems for continued use (including flexible conduit)	
Non-sheathed cables protected by enclosure in conduit, ducting or trunking	
Earthing requirements for high protective conductor currents	
Earthing requirements for connection of conductors with high protective conductor currents	
Co-ordination between conductors and overload protective devices	
Adequacy of cables for current-carrying capacity with regard for the type and nature of installation	
Adequacy of protective devices: type and rated current for fault protection	

Schedule of Items Requiring Inspection - Detailed

Occupier **Agilent Technologies Ltd**

Installation Address **Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road**

Specific Location **Not Applicable**

Schedule of Items Requiring Inspection - Detailed	Defect Code
Presence and adequacy of circuit protective conductors	
Cables under floors, above ceilings, in walls / partitions less than 50mm from a surface, and in partitions containing metal parts not under the supervision of skilled or instructed persons, provided with additional protection by a 30 mA RCD	
Provision of additional protection by 30 mA RCD for circuits used to supply mobile equipment not exceeding 32 A rating for use outdoors in all cases.	
Provision of additional protection by 30 mA RCD for circuits used to supply mobile equipment not exceeding 32 A rating for use outdoors in all cases.	
Final circuit cables concealed under floors, above ceilings, in walls / partitions less than 50 mm from a surface, and in partitions containing metal parts Installed in prescribed zones and not under the supervision of a skilled or instructed person	
Final circuit cables concealed in walls, floors & ceilings etc, require mechanical protection or RCD protection. These circuits are deemed not to be under the supervision of a skilled or instructed person.	
Provision of additional protection by 30 mA RCD for all socket-outlets of rating 20 A or less provided for use by ordinary persons unless exempt.	
Provision of fire barriers, sealing arrangements and protection against thermal effects	
Band II cables segregated / separated from Band I cables	
Cables segregated / separated from non-electrical services	
Termination of cables at enclosures	
Termination of cables at enclosures - Connections under no undue strain	
Termination of cables at enclosures - No basic insulation of a conductor visible outside enclosure	
Termination of cables at enclosures - Connections of live conductors adequately enclosed	
Termination of cables at enclosures - Adequately connected at point of entry to enclosure (glands, bushes etc.)	C3
Adequacy of connections	
Condition of accessories including socket-outlets, switches and joint boxes	
Position of accessories including socket-outlets, switches and joint boxes	
Suitability of accessories for external influences	
Identification of final circuits	
Presence and adequacy of circuit protective conductors to accessories	
Presence and adequacy of circuit protective conductors to metallic accessories / fittings	
Presence and adequacy of circuit protective conductors in Class 2 circuits	
Presence and adequacy of labelling for Class 2 lighting circuits	
Sleeving of bare CPC's	
Cables in Thermal insulation	
Accessibility to high level equipment defined as included in scope	
Equipment above 3m excluded from Condition Report high level equipment	
Other observations regarding final circuits	
Isolation and Switching	
Isolators - Presence and condition of appropriate devices	
Isolators - Acceptable location — state if local or remote from equipment in question	
Isolators - Capable of being secured in the OFF position	
Isolators - Correct operation verified	
Isolators - Clearly identified by position and / or durable marking	
Isolators - Warning label posted in situations where live parts cannot be isolated by the operation of a single device	
Switching off for mechanical maintenance - Presence and condition of appropriate devices	

Schedule of Items Requiring Inspection - Detailed

Occupier **Agilent Technologies Ltd**
Installation Address **Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road**
Specific Location **Not Applicable**

Schedule of Items Requiring Inspection - Detailed	Defect Code
Switching off for mechanical maintenance - Acceptable location—state if local or remote from equipment in question	
Switching off for mechanical maintenance - Capable of being secured in the OFF position	
Switching off for mechanical maintenance - Correct operation verified	
Switching off for mechanical maintenance - Clearly identified by position and or durable marking	
Emergency switching / stopping - Presence and condition of appropriate devices	
Emergency switching / stopping - Readily accessible for operation where danger might occur	
Emergency switching / stopping - Correct operation verified	
Emergency switching / stopping - Clearly identified by position and or durable marking	
Functional switching - Presence and condition of appropriate devices	
Functional switching - Correct operation verified	
Other observations regarding isolation and switching	
Current Using Equipment (Permanently Connected)	
Condition of equipment in terms of IP rating etc	
Equipment does not constitute a fire hazard	
Enclosure not damaged/deteriorated so as to impair safety	
Suitability for the environment and external influences	
Security of fixing	
Cable entry holes in ceiling above luminaries, sized or sealed so as to restrict the spread of fire.	
Recessed luminaries (down lighters) - Correct type of lamps fitted	
Recessed luminaries (down lighters) - Installed to minimise build-up of heat by use of “fire rated” fittings, insulation displacement box or similar	
Recessed luminaries (down lighters) - No signs of overheating to surrounding building fabric	
Recessed luminaries (down lighters) - No signs of overheating to conductors / terminations	
Provision of Thermal cut outs to prevent dangerous rise in temperature	
Other observations regarding permanently connected current using equipment	
Test Results	
Earth Continuity	
Earth continuity tests using wander lead method	
Isolation of supply to test continuity of Bonding conductors	
Continuity of Ring circuit conductors	
Ring Circuit connections to provide for testing	
Insulation resistance lower than permissable level of 1 Megohm	
Absence of Stray voltages (borrowed neutrals)	
Lower than expected insulation resistance test results	
Insulation resistance tests with Electronic components in circuit	
Requirement to isolate to carry out Insulation Testing	
Insulation testing between Line and Neutral Conductors	
Insulation testing with sensitive electronic components in circuit	
Polarity	
Earth Electrode	
Additional Earth Electrode results	
Earth fault loop impedance	
Selection of Protective devices to prevent accidental operation during maintenance	
Restriction of access to allow testing EFLI	

Schedule of Items Requiring Inspection - Detailed

Occupier **Agilent Technologies Ltd**

Installation Address **Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road**

Specific Location **Not Applicable**

Schedule of Items Requiring Inspection - Detailed	Defect Code
Mains Supply required to allow full range of tests to be conducted	
Confirmation that integral test button / switch causes RCD(s) to trip when operated (functional check)	
RCD(s) provided for fault protection - includes RCBO's	
Integral RCD's in sockets	
Voltage Trip Operation	
All Circuits require identification and labelling for verification purposes	
Other observations regarding test results	

Report Abbreviations

Occupier Agilent Technologies Ltd
Installation Address Voscal 1 Mobile Calibration Trailer, 610 Wharfedale Road
Specific Location Not Applicable

Abbreviation	Meaning	Abbreviation	Meaning
ADS	Automatic Disconnection of Supply	**BBC**	Busbar Chamber
BS3036	Rewirable Fusible Link	**BS3871**	Miniature Circuit Breaker
BS88/BS1361	General Purpose Cartridge Fuses	**BSEN60898**	Miniature Circuit Breaker
BSEN60947-2	Moulded Case Circuit Breaker	**BSEN61009**	Combined MCB/RCD
C/W	Copper Wire	**CON**	Concentric
CPC	Circuit Protective Conductor	**CS**	Cable Sheath
DB	Distribution Board	**EEBADS**	Earthed Equipotential Bonding and Automatic Disconnection of Supply
F	Fail	**FELV**	Functional extra low voltage
FP200	Fire Retardant Cable	**INA**	Information Not Available
ISO	Isolator Switch	**L or LIM**	Limitation of Test
LS	Lead Sheathed Cable	**MCB**	Miniature Circuit Breaker BS3871, BSEN60898
MCCB	Moulded Case Circuit Breaker	**Method**	Refer to BS7671 Appendix 4 Table 4A2 for full list of Reference Methods
MF	Metal Conduit/Trunking System Provides main C.P.C.	**MI/MICC**	Mineral Insulated Copper Conductor Cables
NA	Not Applicable	**P**	Pass
PELV	Protective extra low voltage	**PFC**	Prospective Fault Current
PILSWA	Paper Insulated Lead Steel Wire Armour	**PVC/PVC**	PVC Insulated PVC Sheathed Singles (tails)
RCBO	Residual Current Breaker with Overcurrent Protection	**RCCB**	Residual Current Circuit Breaker
RCD	Residual Current Device	**S**	PVC Insulated Single Cable
SELV	Separated extra low voltage	**SL**	Solid Link
SP+N	Single Pole and Neutral	**SPD**	Surge Protection Device
SWA	Steel Wire Armoured Cable	**SWF**	Switched Fuse
T	PVC Insulated Twin Cable	**T+E**	PVC Insulated Twin and Earth Cable
TP+N	Triple Pole and Neutral	**TRS**	Tough Rubber Sheathed Cable
U	Unknown	**V/VIR**	Vulcanised Indian Rubber Insulated Cable (singles)
VOCB	Voltage Operated Circuit Breaker		