ELECTRICAL INSTALLATION CONDITION REPORT

120872 - Duplicate

A. Details of the Client/Person Ordering the Report

Client: ROYAL CORNWALL MUSEUM

Address:
ROYAL CORNWALL MUSEUM
25 RIVER STREETRURO
CORNWALL
TRURO
TR1 2SJHE

B. Reason for Producing this Report

Purpose of this report:
HEALTH AND SAFETY/INSURANCE

Date(s) on which Inspection: and testing was carried out: 09/12/2016

C. Details of the Installation which is the Subject of this Report

Installation: ROYAL CORNWALL MUSEUM

Occupier: Occupier

Address:
ROYAL CORNWALL MUSEUM
25 RIVER STREETRURO
CORNWALL
TRURO TR1 2SJHE

Description of premises:	Domestic	Commercial	Industrial
	N/A	✓	N/A

Other: N/A

Estimated age of wiring system: 35 yrs

Evidence of alterations or additions: ✓ If yes estimated Age 0.1 yrs

Record of Installation available: N/A Records held By: N/A Date of previous inspection: Not Known

D. Extent and Limitations Inspection and Testing

Extent of Electrical Installation covered by this report:
VISUAL INSPECTION OF WHOLE SYSTEM FOLLOWING
--See Additional Page--

Agreed limitations including the reasons (See regulation 634.2)
FULL INSPECTION AND TEST TO BE CARRIED OUT IN
--See Additional Page--

Agreed with name: N/A

Operational Limitations including the reasons (See page No N/A)
None

This inspection and testing detailed in this report and accompanying schedules have been carried out in accordance with BS7671:2008 (IET Wiring Regulations) as amended to July 2015
It should be noted that cables concealed within trunking and conduits, under floors, in roof spaces, and generally within the fabric of the building or underground, have NOT been inspected unless specifically agreed between the client and inspector prior to the inspection. An inspection should be made within an accessible roof space housing other electrical equipment.

E. Summary of the Condition of the Installation

General condition of the installations (In terms of electrical safety)
SAFE AND SATISFCTORY

Overall assessment of the installation: Satisfactory

*An unsatisfactory assessment indicates that dangerous (code C1) and/or potentially dangerous (code C2) conditions have been identified.

F. Recommendations

Where the overall assessment of the suitability of the installation for continued use above is stated as SATISFACTORY , I recommend that any observations classified as 'Danger present' (code C1) or 'Potentially dangerous' (code C2) are acted upon as a matter of urgency.
Investigation without delay is recommended for observations identified as *'further investigation required' (code FI)*.
Observation classified as 'Improvement recommended' (code C3) should be given due consideration.
Subject to the necessary remedial action being taken I recommend that the installation is further inspected and tested by 09/06/2017

G. Declaration

I , being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by My signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby declare that the information in this report, including the observations and attached schedules, provides an accurate assessment of the condition of the electrical installation taking into account the stated extent and limitations in section D of this report.

Trading Title and address:
Technical Electrical Engineering Ltd,
Wheal Kitty Studios,
Wheal Kitty,
St. Agnes,
Cornwall, TR5 0RD

NICEIC Enrolment Number: 019875
Branch No. (If Applicable): 000

Inspected and tested by:

Name: ALAN DENHAM Position: ELECTRICIAN Signature: Date:

Report authorised for issue by:

Name: ALAN DENHAM Position: ELECTRICIAN Signature: Date:

H. Schedule(s)

The attached schedule(s) are part of this document and this report is valid only when they are attached to it.

1 Schedule(s) of inspection and 1 Schedule(s) of test results are attached

I. Supply Characteristics and Earthing Arrangements

Earthing Arrangements		Number and Type of Live Conductors					
TN-S	N/A	a.c.	✓			d.c.	N/A
TN-C-S	✓	1-Phase (2 wire)	N/A	1-Phase (3 wire)	N/A	2 Wire	N/A
TN-C	N/A	2-Phase (3 wire)	N/A			3 Wire	N/A
TT	N/A	3-Phase (3 wire)	N/A	3-Phase (4 wire)	✓	Other	N/A
IT	N/A	Other	N/A				
		Confirmation of supply polarity	✓				

Nature of Supply Parameters			
Nominal Voltage	$U^{(1)}$	400	V
Nominal Voltage	$U_0^{(1)}$	230	V
Nominal frequency	$f^{(1)}$	50	Hz
Prospective fault current	$Ipf^{(2)}$	4.84	kA
External loop impedance	$Ze^{(2)}$	0.1	Ω
Number of supplies		1	

(Note: (1) by enquiry, (2) by enquiry or by measurement)

Supply protective device

BS(EN): 88-3 Fuse

Type: N/A

Nominal current rating: 100 A

Short circuit capacity: 80 kA

J. Particulars of Installation Referred to in the Report

Means of earthing

Distributor's facility: ✓

Installation earth electrode: N/A

Details of installation Earth Electrode (where applicable)

Type (e.g. rod(s), tape etc.): N/A

Resistance to Earth: N/A Ω

Location: N/A

Method of measurement: N/A

Main Protective Conductors

Tick boxes and enter details as applicable

	Material	csa		Connection and Continuity Verified
Earthing Conductor	Copper	35	mm^2	✓
Main protective bonding conductors	Copper	16	mm^2	✓

Bonding of Incoming Service

Water installation pipes: ✓ Gas installation pipes: ✓ Structural Steel: ✓ Lightning protection: N/A

Oil installation pipes: N/A

Other incoming service(s): N/A — Please State: N/A

Maximum Demand (Load): 100 **Amps**

Protective measure(s) against electric shock: ADS

Main Switch / Switch-Fuse / Circuit-Breaker / RCD

Location: N/A

Type BS(EN): N/A No of poles: N/A

Supply Conductors material: N/A

Supply Conductors csa: N/A mm^2

Current rating: N/A A

Fuse/Device rating or setting: N/A A

Voltage rating: N/A V

if RCD main switch

Rated residual operation current, IΔn: N/A mA

Rated time delay: N/A ms

RCD Operating time at, IΔn: N/A ms

K. Observations

Referring to the attached schedule(s) of Inspection and Test Results, and subject to the limitations specified at the Extent and Limitations of the Inspection and testing section.

No remedial action is required. N/A The following observations are made ✓

Item No	Observations	Code
1	VARIOUS C3 DEVIATIONS AS DETAILED ON SEPARATE REPORT HAVE NOT BEEN CARRIED OUT TO	C3
	DATE	
2	FULL INSPECTION AND TEST BOOKED TO BE CARRIED OUT IN JANUARY 2017	N/A
3	4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.1 Adequacy of working space / accessibility to	C3
	consumer unit / distribution board (132.12; 513.1)	
	--Observations continue on continuation sheet(s)--	

One of the following codes, as appropriate, has been allocated to each of the observations made above to indicate to the person(s) responsible for the installation the degree of urgency for remedial action.

C1 - Danger present. Risk of injury. Immediate remedial action required	0
C2 - Potentially dangerous - urgent remedial action required	0
C3 - Improvement recommended	18
FI - Further investigation required without delay	0

CONDITION REPORT INSPECTION SCHEDULE FOR DOMESTIC AND SIMILAR PREMISES WITH UP TO 100A SUPPLY

Note: this form is suitable for many types of smaller installations not exclusively domestic.

Outcomes	Acceptable condition	✓	Unacceptable condition	State C1 or C2	Improvement recommended	State C3	Further investigation	FI	Not verified	N/V	Limitation	LIM	Not applicable	N/A

Item No	Description	Outcome	Comments
1.0	**DISTRIBUTOR'S / SUPPLY INTAKE EQUIPMENT**		
1.1	Condition of service cable	✓	No
1.2	Condition of Service head	✓	No
1.3	Condition of distributor's earthing arrangement	✓	No
1.4	Condition of meter tails - Distributor/Consumer	✓	No
1.5	Condition of metering equipment	✓	No
1.6	Condition of Isolator (where present)	✓	No
2.0	**PRESENCE OF ADEQUATE ARRANGEMENTS FOR PARALLEL OR SWITCHED ALTERNATIVE SOURCES**	N/A	No
3.0	**EARTHING / BONDING ARRANGEMENTS (411.3; Chap 54)**		
3.1	Presence and condition of distributor's earthing arrangement (542.1.2.1; 542.1.2.2)	✓	No
3.2	Presence and condition of earth electrode connection where applicable (542.1.2.3)	✓	No
3.3	Provision of earthing/bonding labels at all appropriate locations (514.13.1)	✓	No
3.4	Confirmation of earthing conductor size (542.3; 543.1.1)	✓	No
3.5	Accessibility and condition of earthing conductor at MET (543.3.2)	✓	No
3.6	Confirmation of main protective bonding conductor sizes (544.1)	✓	No
3.7	Condition and accessibility of main protective bonding conductor connections (543.3.2; 544.1.2)	✓	No
3.8	Accessibility and condition of other protective bonding connections (543.3.2)	✓	No
4.0	**CONSUMER UNIT (S) / DISTRIBUTION BOARD(S)**		
4.1	Adequacy of working space / accessibility to consumer unit / distribution board (132.12; 513.1)	C3 (see section K)	No
4.2	Security of fixing (134.1.1)	✓	No
4.3	Condition of enclosure(s) in terms of IP rating etc (416.2)	✓	No
4.4	Condition of enclosure(s) in terms of fire rating etc (421.1.201; 526.5)	✓	No
4.5	Enclosure not damaged/deteriorated so as to impair safety (Regulation 621.2 (iii))	✓	No
4.6	Presence of linked main switch (as required by 537.1.4)	✓	No
4.7	Operation of main switch (functional check) (612.13.2)	✓	No
4.8	Manual operation of circuit-breakers and RCDs to prove disconnection (612.13.2)	✓	No
4.9	Correct identification of circuit details and protective devices (514.8.1;514.9.1)	C3 (see section K)	No
4.10	Presence of RCD quarterly test notice at or near consumer unit / distribution board (514.12.2)	C3 (see section K)	No
4.11	Presence of non-standard (mixed) cable colour warning notice at or near consumer unit / distribution board (514.14)	C3 (see section K)	No
4.12	Presence of alternative supply warning notice at or near consumer unit / distribution board (514.15)	N/A	No
4.13	Presence of other required labelling (please specify)(Section 514)	C3 (see section K)	No
4.14	Examination of protective device(s) and base(s); correct type and rating (no signs of unacceptable thermal damage, arcing or overheating)(421.1.3)	C3 (see section K)	No
4.15	Single-pole switching or protective devices in line conductor only (132.14.1; 530.3.2)	✓	No
4.16	Protection against mechanical damage where cables enter consumer unit / distribution board (522.8.1; 522.8.11)	✓	No
4.17	Protection against electromagnetic effects where cables enter consumer unit / distribution board / enclosures (521.5.1))	✓	No
4.18	RCD(s) provided for fault protection – includes RCBOs(411.4.9; 411.5.2; 531.2)	✓	No
4.19	RCD(s) provided for additional protection - includes RCBOs (411.3.3; 415.1)	✓	No
4.20	Confirmation of indication that SPD is functional (534.2.8)	N/A	No
4.21	Confirmation that ALL conductor connections, including connections to busbars are correctly located in terminals and are tight and secure (526.1)	✓	No
4.22	Adequate arrangements where a generating set operates as a switched alternative to the public supply (551.6)	N/A	No
4.23	Adequate arrangements where a generating set operates in parallel with the public supply (551.7)	N/A	No
5.0	**FINAL CIRCUITS**		
5.1	Identification of conductors (514.3.1)	C3 (see section K)	No
5.2	Cables correctly supported throughout their run (522.8.5)	N/V	No
5.3	Condition of insulation of live parts (416.1)	✓	No

CONDITION REPORT INSPECTION SCHEDULE FOR DOMESTIC AND SIMILAR PREMISES WITH UP TO 100A SUPPLY CONTINUED

Note: this form is suitable for many types of smaller installations not exclusively domestic.

Outcomes	Acceptable condition	✓	Unacceptable condition	State C1 or C2	Improvement recommended	State C3	Further investigation	FI	Not verified	N/V	Limitation	LIM	Not applicable	N/A

Item No	Description	Outcome	Comments
5.0	**FINAL CIRCUITS (Continued)**		
5.4.0	Non-sheathed cables protected by enclosure in conduit, ducting or trunking (521.10.1)	✓	No
5.4.1	To include the integrity of conduit and trunking systems (metallic and plastic)	✓	No
5.5	Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)	C3 (see section K)	No
5.6	Coordination between conductors and overload protective devices (433.1; 533.2.1)	C3 (see section K)	No
5.7	Adequacy of protective devices; type and rated current for fault protection (411.3)	C3 (see section K)	No
5.8	Presence and adequacy of circuit protective conductors (411.3.1.1; 543.1)	✓	No
5.9	Wiring system(s) appropriate for the type and nature of the installation and external influences (Section 522)	✓	No
5.10	Concealed cables installed in prescribed zones (see section D. Extent and limitations) (522.6.202)	N/V	No
5.11	Cables concealed under floors, above ceilings or in walls / partitions, adequately protected against damage (see Section D. Extent and limitations) (522.6.204)	N/V	No
5.12.0	Provision of additional protection by RCD not exceeding 30mA		
5.12.1	For all socket-outlets of rating 20 A or less, unless an exception is permitted (411.3.3)	C3 (see section K)	No
5.12.2	For supply to mobile equipment not exceeding 32 A rating for use outdoors (411.3.3)	✓	No
5.12.3	For cables concealed in walls at a depth of less than 50mm (522.6.202; 522.6.203)	C3 (see section K)	No
5.12.4	For cables concealed in walls / partitions containing metal parts regardless of depth (522.6.203)	C3 (see section K)	No
5.13	Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)	C3 (see section K)	No
5.14	Band II Cables segregated / separated from Band I cables (528.1)	N/V	No
5.15	Cables segregated / separated from communications cabling (528.2)	N/V	No
5.16	Cables segregated / separated from non-electrical services (528.3)	N/V	No
5.17.0	Termination of cables at enclosures – indicate extent of sampling in Section D of the report (Section 526)		
5.17.1	Connections soundly made and under no undue strain (526.6)	C3 (see section K)	No
5.17.2	No basic insulation of a conductor visible outside enclosure (526.8)	✓	No
5.17.3	Connections of live conductors adequately enclosed (526.5)	✓	No
5.17.4	Adequately connected at point of entry to enclosure (glands, bushes etc...) (522.8.5)	✓	No
5.18	Condition of accessories including socket-outlets, switches and joint boxes (621.2 (iii))	C3 (see section K)	No
5.19	Suitability of accessories for external influences (512.2)	✓	No
5.20	Adequacy of working space / accessibility to equipment (132.12; 513.1)	C3 (see section K)	No
5.21	Single-pole switching or protective devices in line conductors only (132.14.1; 530.3.2)	✓	No
6.0	**LOCATION(S) CONTAINING A BATH OR SHOWER**		
6.1	Additional protection for all low voltage (LV) circuits by RCD not exceeding 30mA (701.411.3.3)	N/A	No
6.2	Where used as a protective measure, requirements for SELV or PELV met (701.414.4.5)	N/A	No
6.3	Shaver sockets comply with BS EN 61558-2-5 formally BS 3535 (701.512.3)	N/A	No
6.4	Presence of supplementary bonding conductors, unless not required by BS 7671: 2008 (701.415.2)	N/A	No
6.5	Low Voltage (e.g.230 volts) socket outlets at least 3m from Zone 1 (701.512.3)	N/A	No
6.6	Suitability of equipment for external influences for installed location in terms of IP rating (701.512.2)	N/A	No
6.7	Suitability of accessories and control gear etc. for a particular zone (701.512.3)	N/A	No
6.8	Suitability of current-using equipment for particular position within the location (701.55)	N/A	No
7.0	**OTHER PART 7 SPECIAL INSTALLATIONS OR LOCATIONS**		
7.1	List all other special installations or locations present, if any. (Record separately the results of particular inspections applied).	Number of locations: 0	No

Inspected By

Name: ALAN DENHAM

Date: N/A

Signature:

Board Details

TO BE COMPLETED IN EVERY CASE

Location of Distribution Board: VISUAL INSPECTION CARRIED OUT ONLY

Distribution board designation: ALL CIRCUITS

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Supply to distribution board is from: N/A

No of phases: N/A

Nominal Voltage: N/A V

Overcurrent protective device for the distribution circuit

Type BS(EN): N/A

Rating: N/A A

Associated RCD (if any)

BS(EN): N/A

RCD No of Poles: N/A

RCD Rating: N/A mA

Circuit Details

Circuit number and phase	Circuit designation	Type of wiring	Refe-rence method	No of points served	Circuit conductors csa		Max per-mitted disc-onnec-tion times	Overcurrent protective device				RCD	Max per-mitted Zs Ω
					Live mm^2	cpc mm^2		BS(EN)	Type No	Rating A	Short circuit capa-city kA	Op. current $I\Delta n$	
1/TP	SPARE	-	-	-	-	-	-	-	-	-	-	-	-

Wiring Code

A	B	C	D	E	F	G	H	O
PVC/PVC cables	PVC cables in metallic conduit	PVC cables in non-metallic conduit	PVC cables in metallic trunking	PVC cables in non-metallic trunking	PVC/SWA cables	XLPE/SWA cables	Mineral insulated cables	Other

Board Tests

ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION

Zs	N/A Ω	Operating times of associated RCD (if any)	At $I_{\Delta n}$	N/A ms	
Ipf	N/A kA		At $5I_{\Delta n}$	N/A ms	
Correct supply polarity confirmed	N/A	Phase sequence confirmed (where appropriate)		N/A	

TEST INSTRUMENTS (SERIAL NUMBERS) USED

Earth fault loop impedance	AD-6111-754-080508/6	RCD	AD-6111-754-080508
Insulation resistance	AD-6111-754-080508/6	Other	N/A
Continuity	AD-6111-754-080508/6	Other	N/A

Details of circuits and/or equipment vulnerable to damage

N/A

Circuit Tests

Circuit number and phase	Circuit Impedances Ω					Insulation resistance				polarity	Maximum measured earth fault loop impedance Ω	RCD operating times			Remarks see continuation sheet
	Ring final circuits only (measure end to end)			All circuits (At least one column to be completed)		Live/ Live MΩ	Live/ Neutral MΩ	Live/ Earth MΩ	Earth/ Neutral MΩ			At $I_{\Delta n}$ ms	At $5I_{\Delta n}$ ms	Test button operation	
	r_1 (Line)	r_n (Neutral)	r_2 (cpc)	$(R_1 + R_2)$	(R_2)										
1/TP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Tested By

Signature		Position	ELECTRICIAN
Name	ALAN DENHAM	Date of testing	09/12/2016

Extent of Electrical Installation covered by this report, Continued. from page 1

RECENT C2 WORKS BEING CARRIED OUT

Agreed limitations including the reasons, Continued. from page 1

JANUARY 2017.

Observations Continued from Page 2

Item No	Description	Code
4	4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.9 Correct identification of circuit details and protective devices (514.8.1;514.9.1)	C3
5	4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.10 Presence of RCD quarterly test notice at or near consumer unit / distribution board (514.12.2)	C3
6	4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.11 Presence of non-standard (mixed) cable colour warning notice at or near consumer unit / distribution board (514.14)	C3
7	4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.13 Presence of other required labelling (please specify)(Section 514)	C3
8	4 CONSUMER UNIT (S) / DISTRIBUTION BOARD(S) 4.14 Examination of protective device(s) and base(s); correct type and rating (no signs of unacceptable thermal damage, arcing or overheating)(421.1.3)	C3
9	5 FINAL CIRCUITS 5.1 Identification of conductors (514.3.1)	C3
10	5 FINAL CIRCUITS 5.5 Adequacy of cables for current-carrying capacity with regard for the type and nature of installation (Section 523)	C3
11	5 FINAL CIRCUITS 5.6 Coordination between conductors and overload protective devices (433.1; 533.2.1)	C3
12	5 FINAL CIRCUITS 5.7 Adequacy of protective devices; type and rated current for fault protection (411.3)	C3
13	5 FINAL CIRCUITS 5.12.1 For all socket-outlets of rating 20 A or less, unless an exception is permitted (411.3.3)	C3
14	5 FINAL CIRCUITS 5.12.3 For cables concealed in walls at a depth of less than 50mm (522.6.202; 522.6.203)	C3
15	5 FINAL CIRCUITS 5.12.4 For cables concealed in walls / partitions containing metal parts regardless of depth (522.6.203)	C3
16	5 FINAL CIRCUITS 5.13 Provision of fire barriers, sealing arrangements and protection against thermal effects (Section 527)	C3
17	5 FINAL CIRCUITS 5.18 Condition of accessories including socket-outlets, switches and joint boxes (621.2 (iii))	C3
18	5 FINAL CIRCUITS 5.20 Adequacy of working space / accessibility to equipment (132.12; 513.1)	C3
19	5 FINAL CIRCUITS 5.17.1 Connections soundly made and under no undue strain (526.6)	C3

Code Key

C1 - Danger present. Risk of injury. Immediate remedial action required

C2 - Potentially dangerous - urgent remedial action required

C3 - Improvement recommended

FI - Further investigation required without delay

CONDITION REPORT
GUIDANCE NOTES FOR RECIPIENTS

This report is an important and valuable document which should be retained for future reference.

1. The purpose of this Condition Report is to confirm, so far as reasonably practicable, whether or not the electrical installation is in a satisfactory condition for continued service (see Section E). The Report should identify any damage, deterioration, defects and/or conditions which may give rise to danger (see Section K).

2. The person ordering the Report should have received the “original” Report and the inspector should have retained a duplicate.

3. The “original” Report should be retained in a safe place and be made available to any person inspecting or undertaking work on the electrical installation in the future. If the property is vacated, this Report will provide the new owner /occupier with details of the condition of the electrical installation at the time the Report was issued.

4. Where the installation incorporates residual current devices (RCD) there should be a notice at or near the device stating that it should be tested quarterly. **For safety reasons it is important that this instruction is followed.**

5. Section D (Extent and Limitations) should identify fully the extent of the installation covered by this Report and any limitations on the inspection and testing. The inspector should have agreed these aspects with the person ordering the Report and with other interested parties (licensing authority, insurance company, mortgage provider and the like) before the inspection was carried out.

6. Some operational limitations such as such as inability to gain access to parts of the installation or an item of equipment may have been encountered during the inspection. The inspector should have noted these in Section D.

7. For items classified in Section K as C1 (“Danger Present”), **the safety of those using the installation is at risk,** and it is recommended that a skilled person competent in electrical installation work undertakes the necessary remedial work immediately.

8. For items classified in Section K as C2 (“Potentially Dangerous”), the safety of those using the installation may be at risk and it is recommended that a competent person undertakes the necessary remedial work as a matter of urgency.

9. Where it has been stated in Section K that an observation requires further investigation (code FI) the inspection has revealed an apparent deficiency which may result in a code C1 or C2, and could not, due to the extent or limitations of the inspection, be fully identified could not, due to the extent or limitations of this inspection, be fully identified. Such observations should be investigated without delay. A further examination of the installation will be necessary, to determine the nature and extent of the apparent deficiency (see Section F).

10. For safety reasons, the electrical installation should be re-inspected at appropriate intervals by a skilled person or persons, competent in such work. The recommended date by which the next inspection is due is stated in Section F of the Report under ‘Recommendations’ and on a label at or near to the consumer unit / distribution board.