**EAL Level 3 Experienced Worker Qualification**

**603/5982/1**

**Job Number \_\_\_\_**

**Fault Diagnosis**

**Site Evidence Unit 07**

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**NAME:**

**COMPANY:**

**EMAIL:**

**TEL:**

**SUPERVISOR:**

**ASSESSOR:**

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| **Unit Code: (ETP3-07)**  **Apply Fault Diagnosis and Rectification** | |
| **Learning Outcome 1:**  Prepare to carry out fault diagnosis | |
| Photo of you checking the area is safe to start work. | ***Learning outcome****: 1.1*  ***Criteria****: Check it Is safe to carry out fault diagnosis.*  **Address:**  **Date:** |
| Photo of you informing others of fault diagnosis work being carried out. (Supply might be going off). | ***Learning outcome****: 1.2*  ***Criteria****: Inform relevant personnel of the fault diagnosis work (such as personnel on the premises, users of electrical equipment).*  **Address:**  **Date:** |
| Photos of you carrying out safe isolation:-   1. Locking off with warning label 2. Proving instrument on known supply 3. Testing between all conductors 4. Re-proving instrument on known supply   This evidence could possibly be used on  01.1.3(c)  05.1.2(a)  06.1.1 | ***Learning outcome****: 1.3*  ***Criteria****: Carry out safe isolation procedure.*  **Address:**  **Date:** |
| Photo of you erecting barriers and signage.  This evidence could possibly be used on  01.2.4  01.3.4  06.1.2 | ***Learning outcome****: 1.4*  ***Criteria****: Evaluate and apply appropriate methods to ensure the safety of themselves and others when diagnosing and correcting electrical faults.*  **Address:**  **Date:** |
| **Learning Outcome 2:**  Carry out fault diagnosis | |
| Photo of you informing relevant personnel the nature of the fault. | ***Learning outcome****: 2.1*  ***Criteria****: Communicate effectively with relevant personnel (e.g. customer, premises manager) to ascertain the nature of the fault.*  **Address:**  **Date:** |
| Photo of you looking at layout drawings/board schedule/previous test results. | ***Learning outcome****: 2.2*  ***Criteria****: Select and interpret appropriate documents (e.g. layout drawings, schematic diagrams etc.) which relate to the electrical systems and equipment being worked upon.*  **Address:**  **Date:** |
| Photo of you informing others of disruption that may be caused while correcting faults. i.e. power being switched off. | ***Learning outcome****: 2.3*  ***Criteria****: Assess and communicate potential disruption that may be a consequence of fault diagnosis and correction work to relevant people, such as other workers/colleagues customers/clients.*  **Address:**  **Date:** |
| Photo of you finding a fault by visual inspection. | ***Learning outcome****: 2.4*  ***Criteria****: Carry out relevant inspections of electrical equipment analysis findings.*  **Address:**  **Date:** |
| Photo of you checking the instrument, the test leads and probes/clips are safe to use. Also photo of you checking calibration label on instrument. | ***Learning outcome****: 2.5*  ***Criteria****: Confirm test instruments are fit for purpose, functioning correctly and are correctly calibrated.*  **Address:**  **Date:** |
| Photos of you showing **any** **3** faults from the criteria.  This could be by way of a reading on the test instrument. | ***Learning outcome****: 2.6*  ***Criteria****: Perform suitable diagnostic tests based on engineering decision, to identify electrical faults:*  ***Cover Three:***  *a) loss of supply*  *b) overload*  *c) short-circuit*  *d) earth fault*  *e) incorrect phase rotation*  *f) high resistance joints/loose terminations*  *g) component, accessory or equipment faults*  *h) open circuit*  *i) signal faults*  **Address:**  **Date:** |
| 1. **Several Photos** of you identifying where the fault lies along with an accurate description of how you found it. 2. Photo of you erecting warning signs.   This evidence could possibly be used on  01.1.1  01.3.3  03.2.2   1. Photo of test instrument reading with a fault and an explanation of the reading. | ***Learning outcome****: 2.7*  ***Criteria****: Use appropriate methods for locating faults including:*  *a) Using a logical approach*  *b) Using safe working practices*  *c) Interpretation of test readings*  **Address:**  **Date:** |
| Photos of instrument reading with fault on circuit, **any** **3** off the list. | ***Learning outcome****: 2.8*  ***Criteria****: Use appropriate instruments correctly to carry out fault diagnosis:*  ***Cover Three:***  *a) voltage indicator*  *b) low resistance ohm meter*  *c) insulation resistance tester*  *d) EFLI and PFC tester*  *e) RCD tester*  *f) ammeter*  *g) phase rotation tester*  *h) other appropriate instrument*  **Address:**  **Date:** |
| **Learning Outcome 2:**  Carry out fault rectification | |
| Photo of you showing customer a repair you have carried out, **any** **one** off the list. | ***Learning outcome****: 3.1*  ***Criteria****: Assess the appropriate repairs, removals and replacements and their implications with relevant people including:*  ***Cover One:***  *(e.g. over the assessment occasions cover one item twice or both items once)*  *a) other workers/colleagues*  *b) customers/clients*  **Address:**  **Date:** |
| Photo of you repairing a fault. | ***Learning outcome****: 3.2*  ***Criteria****: Perform fault correction procedures correctly and safely using appropriate tools, equipment and material.*  **Address:**  **Date:** |
| Photo of you verifying that a replacement component is   1. easy to access 2. compliant with BS7671 3. compliant with manufacturer’s instructions. | ***Learning outcome****: 3.3*  ***Criteria****: Assess and verify that replacement components and associated equipment maintain:*  *a) ease of access to enable future maintenance*  *b) compliance with relevant regulations*  *c) compliance with manufacturer’s instructions/organisational procedures*  **Address:**  **Date:** |
| Photo of you leaving a fault that cannot be rectified immediately in a safe condition. (could be locked off or dissconnected). | ***Learning outcome****: 3.4*  ***Criteria****: Apply appropriate procedures to ensure electrical equipment and components are left safe, in accordance with industry regulations, if the fault cannot be corrected immediately based on technical assessment.*  **Address:**  **Date:** |
| Photo of you performing a functional test after completing a repair.  (show the light switched on after repair.)  (show a socket tester light up after repair). | ***Learning outcome****: 3.5*  ***Criteria****: Establish and perform an appropriate inspection and testing procedures to confirm that circuits/equipment/components are functioning correctly after completion of fault correction work.*  **Address:**  **Date:** |
| Photo of you handing over a Minor Electrical Installation Certificate to **any** **one** off the list.  Copy of Minor Electrical Installation Certificate in miscellaneous and reference it to 07.3.6 job number 1/2 | ***Learning outcome****: 3.6*  ***Criteria****: Record test results and other appropriate information regarding the fault correction work clearly and accurately and report it to relevant people:*  ***Cover One:***  *(e.g. over the assessment occasions cover one item twice or two different items once)*  *a) other workers/colleagues*  *b) customers/clients*  *c) representatives of other services*  **Address:**  **Date:** |