

When assessing the likelihood and severity, the following tables can be used for guidance:

| LIKELIHOOD  |                                                              |       |
|-------------|--------------------------------------------------------------|-------|
| Probability | Description                                                  | Score |
| Very Likely | An almost certain chance of injury or accident               | 5     |
| Probable    | Unsafe behaviour or other factors will cause an injury       | 4     |
| Possible    | An incident may occur if the situation changes               | 3     |
| Remote      | Several factors need to be present for the incident to occur | 2     |
| Improbable  | There is no real risk present                                | 1     |

| SEVERITY |                                                                |       |
|----------|----------------------------------------------------------------|-------|
| Severity | Description                                                    | Score |
| High     | Causing death to one or more people                            | 5     |
| Major    | A severe injury e.g. amputation, loss of sight, major fracture | 4     |
| Medium   | Injury that may keep someone off work for more than 1 day      | 3     |
| Low      | Injury requiring first aid but no time off work                | 2     |
| Nil      | No risk of injury                                              | 1     |

| Risk Matrix      | Potential Severity of Harm |              |              |              |              |
|------------------|----------------------------|--------------|--------------|--------------|--------------|
|                  | 5<br>High                  | 4<br>Major   | 3<br>Medium  | 2<br>Low     | 1<br>Nil     |
| 5<br>Very Likely | 25<br>High                 | 20<br>High   | 15<br>Medium | 10<br>Low    | 5<br>Trivial |
| 4<br>Probable    | 20<br>High                 | 16<br>Medium | 12<br>Medium | 8<br>Low     | 4<br>Trivial |
| 3<br>Possible    | 15<br>Medium               | 12<br>Medium | 9<br>Low     | 6<br>Low     | 3<br>Trivial |
| 2<br>Remote      | 10<br>Low                  | 8<br>Low     | 6<br>Low     | 4<br>Trivial | 2<br>Trivial |
| 1<br>Improbable  | 5<br>Trivial               | 4<br>Trivial | 3<br>Trivial | 2<br>Trivial | 1<br>Trivial |

| Activity                      | Hazard                      | Persons at risk | Control measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Likelihood    | Severity    | Rating       |
|-------------------------------|-----------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|--------------|
| Overall awareness of location | Unfamiliarity with the site | Operatives      | Reaction engineers will ask about existing rules of the building or site (including written) and adhere to them, learning emergency procedures such as fire-escape routes, and will liaise where necessary to ensure that other personnel on site are aware of their presence and any associated risks.                                                                                                                                                                           | Possible<br>3 | Medium<br>3 | Low<br>9     |
| Testing of Circuits           | Electric shock              | Operatives      | All engineers will be qualified to level 3 city & guilds, (or equivalent), and hold CompEx 07-08 certification. Engineers to use suitably rated tools and calibrated equipment. When testing dead circuits, safe isolation or the use of locking off devices must be used, leaving an open distribution board unattended is not allowed unless suitable barriers are put in place. Safe working practice must be adhered to and procedures as to company policy must be followed. | Remote<br>2   | High<br>5   | Low<br>10    |
| Testing Live                  | Electric Shock              | Everyone        | Testing live is a requirement of BS7671, Electrical Installation Conditioning Reports & Installation Certificates, and APEA directive. As it cannot be avoided, strict company procedures need to be adhered to, Engineers must be aware of members of the public in close proximity, suitable barriers must be used when working live as well as insulated tools rated at 1000 volts minimum.                                                                                    | Possible<br>3 | Low<br>2    | Low<br>6     |
| General activities            | Asbestos                    | Everyone        | Asbestos awareness as to company training policy, Reaction Testing engineers will have to request the clients asbestos register before commencing work. As the testing is non evasive there will be no disruption to any asbestos particles.                                                                                                                                                                                                                                      | Remote<br>2   | Low<br>2    | Trivial<br>4 |
| General activities            | Slips, trips and falls      | Everyone        | Safe working practice and awareness of environment, work areas to be kept organised and tidy, barriers to be used if required, correct foot ware to be worn at all times, good housekeeping techniques.                                                                                                                                                                                                                                                                           | Possible<br>3 | Medium<br>3 | Low<br>3     |

| Activity                          | Hazard                                                                                                 | Persons at risk | Control measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Likelihood    | Severity    | Rating   |
|-----------------------------------|--------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|----------|
| Working at heights                | Falls                                                                                                  | Operatives      | Reaction testing engineers are authorised to work at height, if there is no practical alternative, only using specially designed equipment such as ladders, towers or cherry-pickers which they have undergone training for. Engineers can under no circumstances use furniture or boxes, these are inherently unsafe, especially when testing items involving electricity. If working at height is unavoidable due precautions must be taken, including that the equipment is fit for use, this equipment must also be checked for signs of damage and to ensure correct assembly before use. Where required suitable PPE must be used, I.E, Fall Arrest Harness.                                 | Remote<br>2   | Medium<br>3 | Low<br>6 |
| Manual Handling                   | Muscular, skeletal, cuts                                                                               | Operatives      | Unless an object is light enough in weight that, with assessment, one engineer can readily lift it, having first assumed a comfortable and correct posture, lifting or moving must not be attempted. Help from a second person, or if necessary, special equipment, must be arranged. Correct posture includes the bending of knees instead of using back muscles, and avoiding the need to reach or stretch while lifting. Refer to manual handling guide. Wear clothing that protects from damage, such as safety-boots, beware of sharp edges. Gloves and knee-pads must be carried as standard, and used where necessary. Safety goggles must be used where flying debris or particles likely. | Possible<br>3 | Medium<br>3 | Low<br>9 |
| Lone Working or Out of Hours Work | Staff unable to promptly summon emergency assistance in the event of serious injury or sudden illness. | Operatives      | Each operative should regard themselves as their own supervisor when working alone and supervise each other when working together. Before working alone, inform a responsible person on the premises or the office by telephone. State what you are doing and how long you anticipate it will take for them to raise an alarm if you have not reported back within the stated time period. and for them to raise an alarm if you have not reported back within the stated time period.                                                                                                                                                                                                             | Possible<br>3 | Medium<br>3 | Low<br>9 |
| General Activities                | Noise                                                                                                  | Operatives      | Risks from noise to be eliminated at source or where this is not reasonably practicable, hearing protection to be provided.<br>Awareness of surroundings need to be taking into account as hearing protection reduce any audible warnings, site instructions must be adhered to.                                                                                                                                                                                                                                                                                                                                                                                                                   | Possible<br>3 | Medium<br>3 | Low<br>9 |



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| ADDITIONAL CONTROL MEASURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Information/Instruction/Training                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Managerial Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>All employees are site inducted and informed of the company's policy on safety health and the environment.</p> <p>The company safety health &amp; environmental policy is made available to all employees and contractors involved in any work undertaken by Reaction.</p> <p>Employees and Contractors must have received a company induction and be provided with job specific information and where necessary be industry trained and competent.</p> <p>Toolbox talks training will be undertaken frequently</p> | <p>The site manager will ensure that all persons working in and around the projects tasks are well informed of all hazards and risks. All persons employed will be checked for suitability in relation to industry training and competence. Where site managers cannot be in attendance at all times, a responsible person will be appointed to ensure that safe working practices are maintained. A system of regular communication calls will be implemented throughout the duration of the project.</p>                                                                                                                               |
| Physical Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Procedural Controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>Fire Extinguishers</p> <p>PPE such as boots, gloves, glasses, hard hats, coveralls, and face masks where necessary.</p> <p>Lifting aids.</p> <p>Double-insulated tools and equipment.</p> <p>Testing equipment.</p> <p>Barrier creams or other to protect hands.</p> <p>Barriers and signage to prevent others straying into the working areas.</p> <p>First Aid Kit.</p> <p>Means of communication e.g. land-line and mobile telephone links, plus radio if appropriate.</p>                                       | <p>Assess safe working practice</p> <p>Risk Assessments and Safety Method Statement.</p> <p>Management and on-site supervision.</p> <p>Daily or more frequent housekeeping clearance of site.</p> <p>Emergency fire procedures and evacuation plan.</p> <p>Employ safe isolation procedures.</p> <p>Circuits must be verified dead before commencement of works.</p> <p>The operative will be required to make contact with base at pre-determined intervals throughout the duration of the activity</p> <p>Regular contact arrangements with on-site security (if any)</p> <p>Adhere to site specific health and safety procedures.</p> |
| HSE & Other Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>Health and Safety at Work etc. Act 1974</p> <p>Driving at Work Regulations 1996</p> <p>Control of Substances Hazardous to Health Regulations 2002</p> <p>Electricity at Work Regulations 1989</p> <p>Manual Handling Operations Regulations (as amended) 1992.</p> <p>Construction (Design and Management) Regulations 2015</p> <p>The Work at Height Regulations 2005.</p> <p>The Control of Noise at Work Regulations 2005</p>                                                                                    | <p>The following will be rigidly adhered to both in the operator training and practical application stages:</p> <p>Electricity at Work Regulations 1989.</p> <p>IET Wiring Regulations (Current) Edition.</p> <p>Code of Practice for In-service Inspection and Testing of Electrical Equipment (Current).</p> <p>Memorandum of Guidance on the Electricity at Work Regulations 1989.</p> <p>APEA blue book.</p>                                                                                                                                                                                                                         |

**RISK ASSESSMENT REVIEW**

**Assessment by:** Mike Holland-Porter

**Position:** Technical Director

**Date:** 14/02/2020

**Review Date:** 14/02/2021

This risk assessment is to assist with the planning and management of visits to customer's premises. It identifies the common hazards and risks associated with Electrical testing/installation activities and the primary means by which the risks are controlled.

Before undertaking the activity Reaction Engineers will also make an assessment of any significant risks which are specific to their particular task.

If the work activity changes or deviates from that originally envisaged, we will seek further advice and request an amended risk assessment.



Mike Holland-Porter - Technical Director



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