Electrical Safety–Key Focus Areas

where everyone goes home safely at the end of the day
Agenda

01 Electrical Safety – An overview
02 Electrical Safety – Key risk areas – Refresher
03 Our Non-Negotiables – Focus areas
04 Going Home Safely at the end of the day
High Risk Areas, narrow risk profile
Controls are well understood, lets make sure behaviour follows

- **Working at Height**: Majority were working at height incidents.
- **Road Safety**: Followed by vehicles incidents.
- **Electrical**: And electrical incidents.
- **Rigging and Lifting**: There was an increase on rigging and lifting incidents.
- **Street Works**: There was an increase on street works incidents.
- **Underground Works**: And underground assets incidents.

Non-negotiables
- **People**
- **Installations**
- **Methods**
- **Tools**
When do we get exposed to the risk of Electricity?

**Electrical Works**

When we are intentionally working with electrical Systems/Equipment

**Non-Electrical Works**

When we are executing other works and come into close proximity with electrical Systems/Equipment unintentionally
What could possibly go Wrong?

Non-Electrical Works

Non-Electrical Works

Below Ground

Street Works

Electrical Works

Work at Height

Electrical
Our Non-Negotiable Requirements – Focus areas

People

Installations

Methods

Tools

- General Awareness
- “Right to Refuse Work”
- Individual Competence and Supplier Qualification
- Medical Fitness to Work
## Our Non-Negotiable Requirements – Focus areas

### Electrical Work Categories - Competency Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT 1</td>
<td>Telecommunications Equipment &amp; Simple Electrical Works</td>
<td>Work limited to plugging equipment into or out of racks, turning items of equipment on or off or replacing items of equipment. These are electrical activities an unskilled person would undertake in their own home. No live working.</td>
</tr>
<tr>
<td>CAT 2</td>
<td>Minor Electrical Works</td>
<td>Permitted to carry out minor electrical work on installations. Work is limited to adding to, repairing or replacement of existing electrical AC circuits. Low capacity DC (up to 50Ahr) Operatives would require formal electrical training and be under the direct supervision of someone who is qualified to registered electrician level or equivalent standard. No live working.</td>
</tr>
<tr>
<td>CAT 3A</td>
<td>High Capacity DC</td>
<td>High Capacity DC, installation, maintenance and testing of high capacity DC systems (Over 50Ahr). Qualified registered Electricians or equivalent. Live working is often unavoidable.</td>
</tr>
<tr>
<td>CAT 4</td>
<td>Install test and commission electrical installations</td>
<td>Design, installation and testing of circuits on both AC and DC systems. Certification that the electrical installation as safe and compliant. Qualified registered Electricians or equivalent.</td>
</tr>
</tbody>
</table>
Our Non-Negotiable Requirements – Focus areas

People

Installations

Methods

Tools

- Design, Installation & Maintenance of Electrical Systems
- High Voltage Rooms
- Distribution Boards/Power Supplies
- UPS, Batteries and Battery Arrays
Our Non-Negotiable Requirements – Focus areas

- People
- Installations
- Methods
- Tools

Installations:
- Working On Live Electrical Systems
- Isolation of Electrical Systems
- Proving ‘Dead’
- Safety Signs

Methods:
- First Aid & Emergency Response
- Working Adjacent to Live Electrical Systems
- Exclusion Zones
Our Non-Negotiable Requirements – Focus areas

- **People**
- **Installations**
  - Tools & Protective Equipment
  - Portable Power Tools
- **Methods**
  - Ladders & Platforms
  - Portable Electrical Appliances
- **Tools**
  - Personal Protective Equipment (PPE)
Urban Myth!

Ampere is the only responsible for electric shock!!!

Of course this is Wrong!

OHM’s Law

\[ V = I \times R \]

Electric Difference (Volts) = Current Intensity (Amperes) X Resistance (Ohm)
## Summary

Think about, talk about and demonstrate good behaviour

<table>
<thead>
<tr>
<th>Standards</th>
<th>Non-Negotiables</th>
<th>Getting it Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Electrical Safety Standard</td>
<td>• People</td>
<td>• We get it right more than we get it wrong</td>
</tr>
<tr>
<td></td>
<td>• Installations</td>
<td>• We need to remind each other why the non-negotiables are in place</td>
</tr>
<tr>
<td></td>
<td>• Methods</td>
<td>• We need to respect each other and look out for each other</td>
</tr>
<tr>
<td></td>
<td>• Tools</td>
<td>• We need to consider the impact COVID-19 has on how we think</td>
</tr>
</tbody>
</table>

- We need to respect each other and look out for each other
- We need to consider the impact COVID-19 has on how we think
Who’s waiting for you to come home safely?

Questions & Answers

Everyone goes home Safely