

RAMSGATE AND DISTRICT MODEL ENGINEERING CLUB


RISK ASSESSMENT

| | | | |
|------------------|----------------------------------|-----------|---|
| Assessment No.: | RA15 | Issue No. | 3 |
| Activity: | Battery Electric Locomotives | | |
| Persons at risk: | Club Members and General Public. | | |

| Key | | | | | | | | |
|--------------------|--|---|----|---------------------------|----|----|--------------------------|---|
| L: Likelihood | 5 | 5 | 10 | 15 | 20 | 25 | High-risk: 15-25 | High-risk activities should cease immediately. Further effective control measures to mitigate risks must be introduced. |
| | 4 | 4 | 8 | 12 | 16 | 20 | | |
| | 3 | 3 | 6 | 9 | 12 | 15 | Medium-risk: 8-12 | Medium-risks should only be tolerated for the short-term, whilst further control measures to mitigate the risks are being planned and introduced. |
| | 2 | 2 | 4 | 6 | 8 | 10 | | |
| | 1 | 1 | 2 | 3 | 4 | 5 | Low-risk: 1-6 | Low-risks are largely acceptable. Where it is reasonable to do so, efforts should be made to reduce risks further. |
| | | 1 | 2 | 3 | 4 | 5 | | |
| S: Severity | | | | DR: Degree of risk | | | RR: Residual risk | |
| Guidance. | <ol style="list-style-type: none"> 1. Identify the persons at risk and the significant hazards. 2. Calculate an initial RR for the activity. 3. Identify risk control measures that reduce the risks to an acceptable level. 4. Calculate a revised RR – assuming the control measures are followed. (Consider changing both the likelihood (L) and the severity (S) ratings.) | | | | | | | |

| Significant Hazards | Initial | | |
|---|---------|---|-------------|
| | L | S | DR L x S |
| Risk of explosion when batteries are connected / disconnected to charger, or locomotive. Risk of acid burns from handling. Risk of injury from lifting heavy batteries and or locomotives. Risk of locomotive unsupervised movement. Risk of locomotive run away. | 3 | 5 | 15 |

| Risk Control Measures | Residual | | |
|--|----------|---|-------------|
| | L | S | RR L x S |
| When connecting or disconnecting batteries to a locomotive, or charger, the circuit should be isolated first to prevent sparks. This is especially important when taking batteries off charge – Always make sure the charger is turned off before connecting or disconnecting batteries. Locomotives should always be fitted with an isolating switch, or trip, which must be turned off before connecting or disconnecting batteries. Nitrile gloves are provided to protect hands from acid, should leaks or spills occur. Ensure correct lifting procedure is used when fitting / removing batteries, or moving locomotives – they are heavier than they look. If a locomotive is to be left unattended a safe method of isolating the power must be fitted to avoid unsupervised movement of the locomotive. To prevent locomotive run away or other occurrence, a ‘Dead Mans’ style safe stop facility should be fitted to the locomotive control system. | 1 | 5 | 5 |

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| Authorised By – Safety Officer: |  | Duncan Edwards | 17-03-2025 |
| Annual Review By: | | | |
| Annual Review By: | | | |
| Annual Review By: | | | |
| Annual Review By: | | | |