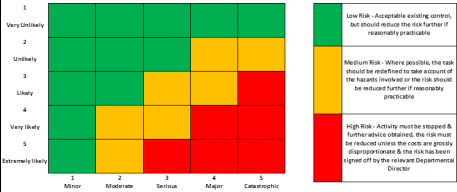


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|----------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Assessment Title (Task, process, equipment or facility) | | Storage and Handling of Lithium-Ion Batteries | |
| Location | All TMHUK Sites and TMHUK Workshops on Customer Premises | Date | 01.04.2025 |
| | | Review Date | 31.03.2026 |
| Prepared By (Team) | | Gary Magee QHS Advisor, Elaine Greaves QHS Manager, Andy Shylan (DGSA) | |
| Legal / Best Practice Requirements / Links to Other Assessments (eg COSHH) | | Health and Safety at Work Act 1974, Control of Substances Hazardous to Health 2002, Dangerous Substances and Explosive Atmospheres Regs 2002, ADR Regulations, Regulatory Reform (Fire Safety) Order 2005, PPE at Work Regs 1992, Manual Handling Operations Regs 1992. | |



| Hazard | Risk | Who / What Might be Affected | Initial Risk | | | Current Controls (including Practices & Procedures) | Actual Risk | | | Additional Controls Required (including Practices / Procedures) | Action by and when |
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| | | | Likelihood | Severity | Risk Level | | Likelihood | Severity | Risk Level | | |
| Storage of Defective Lithium-Ion Batteries and Modules. | Thermal event caused by inappropriate storage and potential for spread. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 3 | 5 | H | 1. Specific areas must be designated for waste storage and appropriately signed. These areas will be cool, dry and out of direct sunlight. Good housekeeping must be observed in these areas at all times. 2. A fire resistant and well ventilated storage container will be used for the storage of defective batteries where practicable. 3. Batteries are kept away from flammable materials. 4. Waste collection companies must be approved contractors. 5. Waste collection vehicle drivers must report to a TMHUK team member on arrival to highlight task to be carried out. 6. Defective Lithium-Ion Batteries must be stored, labelled and handled as per SWP-43 Lithium-Ion Batteries. This is informed by the TMHUK Dangerous Goods Safety Advisor (DGSA). 7. SWP-43 should be followed at all times. 8. AVD extinguishers are located in areas with higher concentrations of Lithium-Ion battery storage. 9. All TMHUK staff undergo emergency response training. 10. Batteries are handled with care to avoid puncture and damage. 11. Under no circumstances are damaged and undamaged batteries to be stored together. 12. Stored defective batteries are collected at least every 14 days and only by approved contractor. | 2 | 5 | M | Continue to review and monitor storage of returned defective batteries | |
| Storage and Charging of New Lithium-Ion Batteries and Modules. | Thermal event caused by inappropriate storage with the potential for spread. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 2 | 5 | M | 1. Lithium-Ion batteries will be coralled into specific storage areas. These areas will be cool, dry and out of direct sunlight. Good housekeeping must be observed in these areas at all times. 2. Batteries are kept away from flammable materials. 3. SWP-43 should be followed at all times. 4. AVD extinguishers are located in areas with higher concentrations of Lithium-Ion battery storage and in charging areas. 5. All TMHUK staff undergo emergency response training. 6. Batteries are handled with care to avoid puncture and damage. 7. Minimum amounts of batteries are stored at any one time and a process in place for ensuring batteries are rotated to ensure no battery or module is left in storage for unnecessary lengths of time. 8. Avoid overcharging and deep discharge to protect battery integrity. Local charging regimes are in place where appropriate utilising industry best practice. 9. Charging areas are located in well ventailted areas within safe temperature ranges, away from direct sunlight and kept dry. 10. Charging areas are setup in areas away from Lithium-Ion bulk storage. 11. Under no circumstances are damaged and undamaged batteries to be stored together. 12. Metal shelving should not be used to store Lithium-Ion batteries in order to reduce the chances of short circuits. 13. New battery storage areas have re-order points to ensure none are left on shelf for prolonged periods. | 1 | 5 | L | All reasonably practicable control measures in place. | |

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| | | | Likelihood | Severity | Risk Level | | Likelihood | Severity | Risk Level | | |
| Defective Lithium-Ion Batteries Identified as Critical | Thermal event caused by inappropriate storage with the potential for spread. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 4 | 5 | H | 1. Critical module to be removed and placed in a safe area. 2. Critical module fault process followed as per SWP-43. 3. Batteries are kept away from flammable materials. 4. Waste collection companies must be approved contractors. 5. Waste collection vehicle drivers must report to a TMHUK team member on arrival to highlight task to be carried out. 6. SWP-43 should be followed at all times. 7. All TMHUK staff undergo emergency response training. 8. Batteries are handled with care to avoid puncture and damage. | 2 | 5 | M | All reasonably practicable control measures in place. | |
| Defective Lithium-Ion Batteries Identified as Non-Critical | Thermal event caused by inappropriate storage and potential for spread. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 3 | 5 | H | 1. Lithium-Ion battery fault process followed as per SWP-43. 2. Specific areas must be designated for waste storage and appropriately signed. These areas will be cool, dry and out of direct sunlight. Good housekeeping must be observed in these areas at all times. 3. A fire resistant and well ventilated storage container will be used for the storage of defective batteries where practicable. 4. Batteries are kept away from flammable materials. 5. Waste collection companies must be approved contractors. 6. Waste collection vehicle drivers must report to a TMHUK team member on arrival to highlight task to be carried out. 7. Defective Lithium-Ion Batteries must be stored, labelled and handled as per SWP-43 Lithium-Ion Batteries. This is informed by the TMHUK Dangerous Goods Safety Advisor (DGSA). 8. SWP-43 should be followed at all times. 9. AVD extinguishers are located in areas with higher concentrations of Lithium-Ion battery storage. 10. All TMHUK staff undergo emergency response training. 11. Batteries are handled with care to avoid puncture and damage. | 1 | 5 | L | All reasonably practicable control measures in place. | |
| Transporting Lithium-Ion Batteries between sites. | Thermal event caused by inappropriate storage and potential for spread. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 2 | 5 | M | 1. Batteries in transport will be kept in an area that will be cool, dry and out of direct sunlight. 2. Batteries are kept away from flammable materials where practicable. 3. Battery transportation contractors must be approved contractors. 4. Battery transportation vehicle drivers must report to a TMHUK team member on arrival to highlight task to be carried out. 5. Defective Lithium-Ion Batteries must be stored, labelled and handled as per SWP-43 Lithium-Ion Batteries. This is informed by the TMHUK Dangerous Goods Safety Advisor (DGSA). 6. SWP-43 should be followed at all times. 7. Batteries are handled with care to avoid puncture and damage. 8. All batteries are transported according to ADR and include correct labelling and use of vermiculite where appropriate. | 1 | 5 | L | All reasonably practicable control measures in place. | |

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| | | | Likelihood | Severity | Risk Level | | Likelihood | Severity | Risk Level | | |
| Fire and Explosion | Thermal event caused by inappropriate storage and potential for spread. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 4 | 5 | H | 1. Specific areas must be designated for waste storage and appropriately signed. These areas will be cool, dry and out of direct sunlight. Good housekeeping must be observed in these areas at all times. 2. A fire resistant and well ventilated storage container will be used for the storage of defective batteries where practicable. 3. Batteries are kept away from flammable materials. 4. Waste collection companies must be approved contractors. 5. Waste collection vehicle drivers must report to a TMHUK team member on arrival to highlight task to be carried out. 6. Defective Lithium-Ion Batteries must be stored, labelled and handled as per SWP-43 Lithium-Ion Batteries. This is informed by the TMHUK Dangerous Goods Safety Advisor (DGSA). 7. SWP-43 should be followed at all times. 8. AVD extinguishers are located in areas with higher concentrations of Lithium-Ion battery storage. 9. All TMHUK staff undergo emergency response training. 10. Batteries are handled with care to avoid puncture and damage. 11. Avoid overcharging and deep discharge to protect battery integrity. Local charging regimes are in place where appropriate utilising industry best practice. 12. Lithium-Ion operations are assessed annually as part of the fire risk assessment. 13. Where practicable, fire breaks are put into storage areas. | 1 | 5 | L | All reasonably practicable control measures in place. | |
| Chemical Exposure | Exposure to corrosive chemicals, skin and eye irritation, inhalation of harmful fumes. | TMHUK team members / customer / 3rd party contractors / site visitors / property damage | 2 | 4 | M | 1. Waste collection companies must be approved contractors. 2. Defective Lithium-Ion Batteries must be stored, labelled and handled as per SWP-43 Lithium-Ion Batteries. This is informed by the TMHUK Dangerous Goods Safety Advisor (DGSA). 3. SWP-43 should be followed at all times. 4. Batteries are handled with care to avoid puncture and damage. 5. Battery maintenance requiring battery case dismantling is only carried out by third-party contractors. 6. Handling tasks that expose team members to vermiculite powder are carried out with gloves, apron and goggles to reduce contact with skin and eyes. Vermiculite is non-toxic but preventative measures are in place for comfort. | 1 | 4 | L | All reasonably practicable control measures in place. | |
| Electrical Shock | Contact with live terminals causing serious burns or death. | TMHUK team members / customer / 3rd party contractors / site visitors | 2 | 5 | M | 1. SWP-43 should be followed at all times. 2. Batteries are handled with care to avoid puncture and damage. Physical damage can expose internal components leading to shock hazards. 3. Only correct and appropriate chargers are used. 4. Loose clothing, jewellery and metal objects are secured when terminals are exposed. 5. Fixed wiring electrical inspection is carried out as per statutory obligations. | 1 | 5 | L | All reasonably practicable control measures in place. | |
| Environmental impact of improper disposal. | Improper disposal causing unnecessary pollution. | Environment / Wildlife / Organisation reputation. | 3 | 4 | M | 1. Waste collection companies must be approved contractors. 2. Waste collection vehicle drivers must report to a TMHUK team member on arrival to highlight task to be carried out. 3. Approved contractors are subject to a rigorous vetting process and selected appropriately. Agreed processes with contractors are in place to ensure environmental aspects are considered when handing over product. 4. Second life policy ensures batteries are not scrapped unnecessarily and extends product lifecycle. | 1 | 4 | L | All reasonably practicable control measures in place. | |

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| | | | Likelihood | Severity | Risk Level | | Likelihood | Severity | Risk Level | | |
| Weather Extremes | Improper storage may cause batteries to get wet leading to thermal event. Added manual handling complications. | TMHUK team members / customer / 3rd party contractors / site visitors | 2 | 5 | M | 1. All Lithium-Ion batteries are stored under cover. 2. Defective Lithium-Ion batteries stored externally are kept cool, dry and out of direct sunlight. 3. A fire resistant and well ventilated storage container will be used for the storage of defective batteries where practicable. 4. All users of the transport yard must follow the guidelines given in the appropriate business centre Transport Policy. 5. Spill kits and grit bins have been provided for use in slippery conditions. | 1 | 5 | L | All reasonably practicable control measures in place. | |
| Poor Housekeeping | Various injuries or thermal event. | TMHUK team members / customer / 3rd party contractors / site visitors | 2 | 5 | M | 1. Good housekeeping must be observed in areas storing Lithium-Ion batteries at all times. This will be monitored by the appropriate Manager and Team Leaders. 2. All TMHUK sites subject to regular safety audits. 3. All TMHUK sites are subject to Toyota Lean Academy (TLA) visits and inspections. | 1 | 5 | L | All reasonably practicable control measures in place. | |
| Manual Handling | TMHUK Team Members | TMHUK team members / 3rd party contractors | 2 | 4 | M | 1. All Team members are to undertake manual handling activities within the guidance as detailed in SWP-13 Manual Handling and TMHUK mandatory induction training. Refresher training is available where required. 2. Manual handling of heavy loads is to be eliminated. FLT's and attachments should be primarily used where possible. 3. Associated documents Risk Assessment 13 - Manual Handling and Safe Working Practice SWP-13 Manual Handling apply. All TMHUK team members are to follow the control measures documented. 4. Batteries are handled with care to avoid puncture and damage. 5. Handling tasks that expose team members to vermiculite powder are carried out with gloves, apron and goggles to reduce contact with skin and eyes. Vermiculite is non-toxic but preventative measures are in place for comfort. | 1 | 4 | L | All reasonably practicable control measures in place. | |