

1. Fire Risk Management and Containment

This section provides detail on the range of potential fire hazards identified at the facility. The assessment considers all operational aspects of the site that present risks in regard to ignition of flammable and combustible materials, and the potential ensuing consequences.

The full assessment of the identified hazards is provided in **Table 1** below. It is important to highlight that once operational, key systems and services will be maintained according to the performance standards required at the facility. This includes, but is not limited to, ensuring:

- Fire systems are maintained and tested in accordance with relevant Australian Standards (AS2118.1).
- Regular maintenance of plant and equipment is performed and scheduled as per manufacturer's specifications.
- Critical site services testing and maintenance (including the transformer, warehouse lighting, circuit boards) be conducted as per the appropriate performance standards and/or recommendations based on expert review.
- Site emergency procedures are maintained to ensure systems and people are prepared for emergency events that may involve fire.

A copy of the most recent Annual Fire Safety Statement (dated 30/11/2016) has been provided as **Appendix 9** to the EIS.

Table 1. Identified fire hazards and containment measures.

Identified Fire Hazard (facility or event)	Cause and Comments	Potential Results/Consequences	Containment (Prevention/Detection) Protection Measures
Stored mattresses inside warehouses.	Possible causes: • Electrical/wiring faults • Electrical boards faults • Lighting faults • Unsafe storage • Hot works conducted nearby flammable materials. • Arson • Smoking	• Fire involving warehouse contents spreading other parts of the facility. • Building structures on fire potentially collapsing. • Toxic combustion products released to air and fire-water. • Human health affected from smoke inhalation.	• Minimal storage of mattresses will be standard practice. • On-site fire suppression and warning systems are already installed and will be maintained as per Australian Standards (including inspection and testing). • An emergency response procedure will be developed for the site. • Site Security Systems will be established and monitored, including ensuring site boundary fencing is secure. • Equipment maintenance programs will be put in place, and maintained as per manufacturing specifications. • Maintenance, including testing and tagging, of electrical equipment will be maintained as per relevant standards. • A procedure to check and maintain fire doors to meet relevant standards will be put in place. • A hot-works procedure will be developed for the site. • Smoking bans will be enforced at the

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			facility.
Dust, or mattress shred, from mattress processing.	Faulty equipment/motors causing excessive heat, or sparks igniting process dust or mattress shred.	- Fire spreading to other parts of the facility. - Toxic combustion products released to air and fire-water. - Human health affected from smoke inhalation.	- On-site fire suppression and warning systems are already installed and will be maintained as per Australian Standards (including inspection and testing). - The plant will be designed to include: installation of a fire sprinkler system within the dust collection ductwork; and, an automated chemical foam suppression system installed as an addition to the existing fire sprinklers at the facility. - On-site fire suppression and warning systems are already installed and will be maintained as per Australian Standards (including inspection and testing). - An emergency response procedure will be developed for the site. - Site Security Systems will be established and monitored, including ensuring site boundary fencing is secure. - Equipment maintenance programs will be put in place, and maintained as per manufacturing specifications. - Maintenance, including testing and tagging, of electrical equipment will be maintained as per relevant standards.

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			• A procedure to check and maintain fire doors to meet relevant standards will be put in place. • A hot-works procedure will be developed for the site. • Smoking bans will be enforced at the facility.
Gas cylinders (LPG gas cylinders for Forklifts).	• Unconstrained and uncontrolled use of gas cylinders. • Inappropriate use and storage of cylinders. • Cylinder leaks. • Gas cylinder usage with faulty equipment (eg. Forklift) • Smoking	• Gas leak combined with an ignition source creating a fire with potential to spread to buildings and combustible tyre materials. • Human health affected from gas inhalation.	• Operators of forklifts will be trained in the appropriate handling and storage management of gas cylinders. • Gas cylinders stored at the site will be constrained at all times • Storage of gas bottles will be minimised, and will only be ordered on an as needs basis. • Smoking bans will be enforced at the facility.
Electrical equipment in the Administration Area (Office and Amenities)	• Overheating of computer equipment. • Faulty equipment used nearby or inside containers (eg. Portable lighting). • Arson • Smoking	• Faulty equipment or overheating of computer equipment causing a fire in the office space. • Fire spreading to other parts of the facility. • Building damage as a result of fire and fire suppression	• Testing and tagging of electrical equipment will be maintained as per relevant standards, and will be performed by qualified electrical contractors. • Routine office inspections & audits will be conducted to monitor office safety performance. • Office space will be air conditioned to provide a temperature controlled

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		systems. Human health affected by smoke inhalation.	environment, assisting in avoiding overheating of equipment. - On-site fire suppression and warning systems are already installed and will be maintained as per Australian Standards (including inspection and testing). - An emergency response procedure will be developed for the site. - Site Security Systems will be established and monitored, including ensuring site boundary fencing is secure.
Site Electrical Transformer	Electrical fault releasing and igniting mineral oil contained within the transformer.	Fire exposure to nearby building, potentially causing a severe fire at the facility.	- The transformer is housed in a self-contained 'kiosk' providing some separation from building structures. - A review will be undertaken to determine the need to upgrade the fire sprinkler system with sprinkler heads on the building wall adjacent to the transformer. Including sprinklers at this point would act to keep the wall cool in the event of a fire, and further reduce the risk of fire. - A maintenance/testing regime of the Transformer will be undertaken as per relevant codes and standards.
Fire at a neighbouring	The adjoining RMAX facility shares the same	Fire spreading to the proposed facility.	An emergency response procedure will be developed to take into account a potential

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facility.	building, with a fire wall dividing the two areas. • There is potential for a fire at the RMAX facility to impact the proposed site.	• Building damage as a result of fire, and fire suppression systems.	fire event at the neighbouring RMAX plant. • TIC Mattress Recycling will seek to work with RMAX to develop a common site-level emergency response procedure. • Once emergency procedures are established TIC Mattress Recycling will ensure evacuation drills and procedures practiced. • On-site fire suppression and warning systems are already installed and will be maintained as per Australian Standards (including inspection and testing).

