



**State Infrastructure and Dangerous Goods Unit CFA Headquarters**  
8 Lakeside Drive BURWOOD EAST VIC 3151  
T: (03) 9262 8865 E: sidgu@cfa.vic.gov.au

CFA Ref: 69260-67389-93281  
Telephone: (03) 9262 8865  
TRAX Ref: dg\_letterofadvice

4 September 2019

Lokesh Baskaran  
Quantum Recycling Solutions P/L  
16 Sonia Street  
**CARRUM DOWNS VIC 3201**

Dear Lokesh,

***Letter of Advice on Fire Protection and Emergency Management  
Pursuant to the Dangerous Goods (Storage and Handling) Regulations 2012  
Quantum Recycling Solutions P/L, 16 Sonia Street CARRUM DOWNS 3201***

An application has been received by the Country Fire Authority (CFA) relative to the provision of written advice pursuant to Regulations 54 and 55 of the Victorian Dangerous Goods (Storage and Handling) Regulations 2012.

Following a discussion with the applicant and additional information provided by email on 4<sup>th</sup> September 2019, the quantities of dangerous goods at the facility were confirmed to be:

- 1 x pallet of lead acid (car) batteries (est. 1000kg, including casings);
- 1 x 200L drum of lithium-ion batteries (incl. casings).

As the quantities of dangerous goods at the facility fall below manifest quantities of dangerous goods as per Schedule 2, CFA provides the following general advice relating to fire protection and emergency planning based on the information provided.

The recommendations provided in this letter are in addition to requirements pursuant to building approval and other regulations at the time of review. However, where Dangerous Goods Regulations requirements are the same, they may be integrated to avoid duplication.

***CFA Advice***

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**1. Fire Protection**

***CFA recommends that dangerous goods installations adhere to the fire protection requirements outlined in any relevant Australian Standards concerning the dangerous goods stored and handled on the premises.***

## **2. Placarding**

**CFA recommends:**

- ***That dangerous storages over placarding quantities as per Schedule 2 of the Dangerous Goods (Storage and Handling) Regulations are placarded according to Regulations 47-51 and that the form of placards is in line with Schedule 4 of the Dangerous Goods (Storage and Handling) Regulations 2012.***
- ***Reviewing the Code of Practice for the Storage and Handling of Dangerous Goods (2013) for guidance in relation to the requirements for installing outer warning placards at site entrances, and dangerous goods class labels at dangerous goods storage areas.***

## **3. Dangerous Goods (Storage and Handling)**

**CFA recommends:**

- ***That dangerous goods installations adhere to the separation, segregation, spill containment, ventilation and any/all other storage and handling requirements outlined in the relevant Australian Standards for the dangerous goods to be stored and handled on the premises (e.g., AS 3780: The storage and handling of corrosive substances).***

## **4. Lithium-Ion Batteries**

### **4.1 Risk Management**

***Any facility housing an e-waste collection container is to undertake a risk management process in relation to the provision, use, management and emptying of containers.***

***The risk management process is to include the:***

- ***Identification of hazards and risks;***
- ***Development and implementation of appropriate control measures;***
- ***Review processes and procedures that ensure the ongoing appropriateness and effectiveness of control measures.***

***Risks associated with the storage and handling of batteries are to be eliminated or reduced so far as is reasonably practicable as per the Occupational Health and Safety Act 2004, and the Dangerous Goods (Storage and Handling) Regulations 2012.***

### **4.2 Location of Collection Containers**

***Collection containers are to be located in areas that are:***

- ***Equipped with smoke and/or heat detectors;***
- ***In coverage areas for any installed sprinkler systems (where applicable);***
- ***Within 10m of an installed (unobstructed, serviceable) dry powder fire extinguisher;***
- ***Clear of ignition sources (electrical equipment, including power points, water coolers, etc.) for 3m in all directions;***
- ***Away from heat sources, including direct or reflected sunlight, heaters, and heat-emitting lights;***

- *Well-ventilated;*
- *Fully supervised by staff at all times;*
- *At least 10m of any other dangerous goods;*
- *Not within paths of travel to an exit; and*
- *Not within 6m of an exit.*

#### 4.3 Storage and Handling of Batteries

**Staff are to be trained in the hazards and risks associated with the storage of lithium-ion batteries.**

**Appropriate materials for clean-up of spills/leaks, and personal protective equipment (at least appropriate chemical gloves and eyewear/safety glasses) are to be provided.**

**Staff are to be trained in the safe and effective use of emergency equipment.**

#### 4.4 Emergency Procedures

**Site occupiers are to develop procedures for the management of emergencies involving lithium-ion batteries.**

**Emergency procedures are to be developed for:**

- *Smouldering batteries;*
- *Smoke or fire emanating from the container;*
- *Leaks or spills from the container;*
- *Unusual odour emanating from the container;*
- *Impacted or fallen/knocked over containers; and*
- *Fire from an external source impacting the container.*

**Emergency procedures are to include:**

- *Calling the fire services on '000';*
- *Evacuation of personnel; and*
- *Emergency response if safe to do so (e.g., continual dousing with water from fire hose reels until the fire brigade arrives).*

#### Staff Training and Exercising

**Site occupiers are to provide training for staff in the emergency procedures, including the practical use of fire protection equipment (e.g., fire extinguishers and fire hose reels).**

**Smouldering batteries are not to be handled.**

**CFA recommends that staff be provided with training in accordance with Regulation 25 of the Dangerous Goods (Storage and Handling) Regulations 2012 in relation to:**

- *The storage and handling of all dangerous goods on the premises;*
- *The emergency measures to be taken in the event of a fire, leak, spill or explosion;*

- *The use of fire protection equipment (where required); and*
- *The procedures pertaining to evacuation of the site, including the location and purpose of the emergency evacuation assembly areas.*

**Emergency Management Planning**

***CFA recommends that an emergency management plan be developed that includes the information required by the Dangerous Goods (Storage and Handling) Regulations 2012; the Code of Practice for the Storage and Handling of Dangerous Goods (2013); AS 3745: Planning for emergencies in facilities, and any other emergency planning requirements outlined in relevant Australian Standards for dangerous goods stored and handled on site.***

**Provision of Emergency Information**

***CFA recommends that a container housing your Emergency Information Book be:***

- *Located at the site entrance;*
- *Painted red and clearly labelled 'Emergency Information' in contrasting lettering at least 25mm high.*
- *Accessible with a fire brigade standard '003' key.*

For clarification on any matter within this letter or if any further information is required regarding emergency response as per the Dangerous Goods (Storage and Handling) Regulations 2012, please contact Jennifer Blyth on (03) 9262 8865.

Yours faithfully



**Jennifer Blyth**  
Senior Dangerous Goods Officer  
Community Service Delivery  
CFA Headquarters