

## **Dangerous Goods Handling and Transportation Act Application Report – Waste Lead Acid Battery Transfer Depot – Brady Road Resource Management Facility**

### Introduction, Background and Description of Proposed Development

The Brady Road Resource Management Facility (BRRMF) does not promote the delivery of lead acid batteries. However, batteries continue to be brought to the site and therefore provision has been made to store the batteries until they can be collected by licenced carriers. Failure to provide a facility could result in either having batteries disposed of with waste and landfilled or unauthorized dumping/abandonment.

A licence for a facility to store and transfer the batteries is required under the Dangerous Goods Handling and Transportation Act. The proposed battery transfer depot will consist of a well vented roofed structure located on an acid compatible base in which batteries will be stored on wood pallets, in no more than two lifts, with the lifts separated by a minimum of two layers of corrugated cardboard or other suitable material.

The facility will have capacity to store approximately 500 batteries. Attached is a drawing, number BTD 1, showing the proposed structure and base for the depot.

The depot will be operated by staff trained in Transportation of Dangerous Goods Regulations, facility operating procedures and spill cleanup procedures. Effective neutralizing materials shall be conveniently located for cleanup of spills and an eyewash station shall be located in close proximity to the facility. An emergency response contingency plan will be in effect for the site.

The general location of the depot at the BRRMF is as shown on the attached drawing number BTD 2. The depot location will be relocated to the location of the planned Community Resource Recovery Centre at the BRRMF (also shown on drawing number BTD 2), once this facility is constructed in late 2013 or early 2014.

### Environmental Considerations

The proposed battery depot will be an improvement over the current practice of storing the batteries in an open-air setting. The roofed structure will prevent any precipitation from contacting the batteries and potentially producing contaminated runoff. Drainage from the roof will be directed well away from the structure. The structure will be located on a 460 mm compacted crushed limestone pad located on natural clay compacted in-situ with a perimeter compacted clay barrier.

The constructed and natural clay barrier encasing the limestone pad will both prevent water from infiltrating the limestone pad and contain any liquid leakage

onto the pad. The significant thickness of limestone in the pad will be beneficial in the event of any lead acid battery leakage onto the pad. The reaction of limestone (calcium carbonate) with lead battery acid (sulphuric acid) produces calcium sulphate, water and carbon dioxide. Calcium sulphate is a solid, which would be contained together with any lead present within the limestone pad. Calcium sulphate does not have any toxic effects to man and the environment. It has a low water solubility and has no flammable, explosive or oxidizing properties.