



Department of Consumer
and Employment Protection
Government of Western Australia

Resources Safety 

Dangerous Goods Safety

Significant Incident Report No. 01-08

Transport incident involving the failure of a plastic intermediate bulk container (IBC) containing a mixture of hydrofluoric and sulphuric acids

Incident

On 13 August 2008, a plastic intermediate bulk container (IBC) containing a mixture of hydrofluoric and sulphuric acids (4% and 20%, respectively) cracked as it was being transported by truck. The container apparently failed as the truck travelled over a speed hump.

The crack in the 13-year-old IBC allowed about 800 litres of acid to leak onto the road in a relatively localised area. However, given the presence of hydrofluoric acid, a substantial hazardous materials response was initiated by the Fire and Emergency Services Authority (FESA) and supporting agencies.

The acid spill was neutralised with slaked lime and the resultant material recovered for disposal.

No injuries were sustained as a result of the incident.

Cause

The cause of failure of the IBC (consisting of a rigid plastic inner receptacle and an outer metal mesh frame) is currently under investigation, although plastic embrittlement is suspected.

Recommendations

- Persons responsible for filling and consigning IBCs should immediately check:
 - IBCs to ensure that they are not damaged or defective in a manner that may cause the transport of dangerous goods to be unsafe;
 - the date of manufacture of IBCs and ensure that all inspections and testing required by the *Australian Dangerous Goods Code* have been performed; and
 - that plastics used in the construction of IBCs are adequately resistant to ageing, degradation caused by the dangerous goods contained and, where relevant, to ultraviolet radiation.
- Where dangerous goods are involved, it is recommended that plastic IBCs are not used beyond a period of five years from the date of manufacture.

Malcolm Russell
CHIEF OFFICER

28 August 2008