Review of Fugitive Emissions
January to December 2015

Permit EPR/BV5386IX
Variation EPR/BV5386IX/V003

Annual Review of Fugitive Emissions

Background

During 2006 no fugitive emissions were reported and in 2007 there were a number of small incidents reported where a number of automotive batteries had been inadvertently dropped in external areas. This had resulted in small amounts of dilute sulphuric acid being spilled however, the areas where they occurred were on surfaces of hard standing which allowed for immediate cleaning to take place and no environmental damage resulted.
In May 2008, the company undertook a full review of its external battery storage areas which had been the subject of a permit variation in 2007.
The review resulted in a nearby warehouse facility being commissioned to store the majority of automotive batteries which in turn had resulted in a significant reduction to environmental risk associated with the external storage method, however, in mid 2010 the sales company was relocated to Swindon, Wiltshire and as from 31st December 2012, only a small stock of automotive and motorcycle batteries are kept on site as the testing laboratory remains at Ebbw Vale.

Previous 12 Months - January to December 2015

1. *Automotive and Motorcycle Battery Storage Areas*

Large quantities of automotive batteries are not stored on site however, small quantities of both automotive and motorcycle batteries are stored near the battery test room in factory No.2 as battery testing remains an activity performed on the site.
In addition, the factory and surrounding grounds are provided with adequate amounts of spill response kits and materials which are tailored to suit each individual area depending on the environmental risk posed and are themselves subject to regular inspection.

2. *2015 Environmental Incident Reports*

On reviewing the incident database for 2015, there were 2 environmental incidents recorded in the above period but also 1 in early 2016:-

2.1 A small glass container of nitric acid was damaged while being delivered to factory No.1 warehouse which resulted in the contents leaking over the concrete floor surface.
It is suspected that the delivery driver may have dropped one of the packages while placing it on the floor.
It was dealt with immediately by the emergency response team and is not considered to have resulted in a fugitive emission as the floor was quickly cleaned with a neutralising agent.
The plan at ***appendix A*** has been updated to show the location of an additional specialist chemical spill kit at factory No.1 warehouse. It also shows all spill kits located throughout the site and also the location of the site emergency response cabinets.

2.2 An acid chilling unit was identified to have a small leak of dilute sulphuric acid at one of the production acid injection machines. It was repaired immediately and had no lasting effect.

2.3 Although not in the above period, an environmental incident occurred at the rear of factory No.4 on 11/1/2016 which resulted in the loss of a significant amount of dilute sulphuric acid into the internal and external acid bunds.
The containment measures worked reasonably well and the incident was reported to Natural Resources Wales.
Following this, an action plan was drawn up to address a number of issues that were identified as part of the subsequent investigation.
It is not considered that any permanent harm was done to the environment.

3. Ambient Monitoring

In 2015, the site joined another local Lead company on the same industrial estate to share the operational costs and Lead results obtained from a local school which is officially classified as a human sensitive receptor in the area where the plant is located.

Individual monthly ambient monitoring results at the school have all remained fairly consistent between January and December 2015 with the highest result being 0.177µg/m^3 in December 2015. As at 31st December 2015, the annual mean result was 0.084µg/m^3 which is within the limit set by the air quality objective.

Site ambient Lead in air results at the south west monitor have been inconsistent with the highest monthly result being 0.278µg/m^3 in September 2015. The annual mean result was 0.101µg/m^3 which is a reduction from 0.146µg/m^3 in January 2015.

Site ambient Lead in air results at the north east monitor have also been inconsistent with the highest monthly result being 0.239µg/m^3 in September 2015. The annual mean result was 0.107µg/m^3 which is a reduction from 0.193µg/m^3 in January 2015.

It is unknown whether construction of the A465 road has had an effect on them and stack results in 2015 were all within the limits set.

Also, all appropriate staff are periodically reminded of the need to exercise due care when carrying out external work which has a potential to result in a fugitive Lead emission to air and has previously been the subject of formal toolbox talks whereby individuals are required to acknowledge specific Environmental, Health, Safety and Quality information with their signature and date being recorded.

4. Integrity Inspections of Internal Drain Systems and Associated Pits

The company use a large drainage system in all battery production areas which guides trade effluent water towards the effluent treatment plants.
Annual leak testing of the systems in 2015 has not revealed any significant problem with their integrity however, factory No.1 main external acid bund requires repainting, factory No.2 main external acid bund requires a minor repair to the floor and Factory No.4 internal assembly mixing bund requires repair to the floor.

There is unlikely to be any fugitive emission from them.

5. Trade Effluent and Stack Emission Results

In 2015, the sampling of trade effluent undertaken at effluent discharge points S1 and S2 along with stack emission sampling have all been within permitted limits therefore, there is unlikely to have been a fugitive emission from them.

6. Reviews and Improvements to Further Minimise the Risk of Fugitive Emission

A further review has also been undertaken in line with items identified in previous reports with regard to other potential sources of fugitive emission to air, land and water with a view to further minimise the risk as follows:-

6.1 All external doors continue to be closed wherever possible.

6.2 Forklift trucks continue to be cleaned on a frequent basis.

6.3 Lead components transported between factories are covered so as to minimise any external Lead risk during transportation.

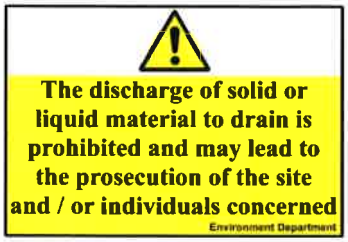
6.4 A review of internal Lead production processes is on-going in order to improve general housekeeping standards throughout the site which will benefit both environmental and health and safety performance and on this point internal risk assessments and safe working methods continue in a review programme which also maintains operator awareness.

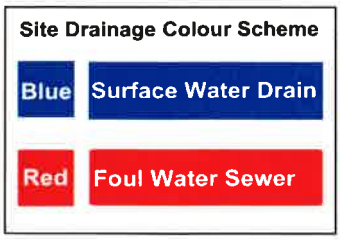
6.5 Regular checks of pH and sulphate at the main effluent plant (S1) continue to be performed along with a daily check of the Lead concentration.

6.6 Contractor awareness of environmental permit requirements for the site is continuing in the site induction training programme along with monitoring of risk assessments in morning accountability meetings.
Contractor's identification badges continue to be colour coded and the date of their induction training is also included.
It is now an annual requirement for induction training of contractors who regularly attend the site.

6.7 Daily inspections of external Lead abatement equipment introduced in August 2008, is continuing. The fitting of weatherproof curtains around some dust catchment points are also considered to further minimise the risk of fugitive emission of Lead to air during maintenance of the catchment systems.

6.8 In 2009, new environmental warning signs were placed at all main entrances in respect of surface water drains. Similarly, signage was also placed around the site in regard to site drain colours. These signs have been rechecked to ensure they remain clearly visible in all appropriate areas:-





6.9 A warning sign continues to be displayed at the waste compactor as below in order to keep awareness raised and the area is also monitored by a Closed Circuit Television Camera (CCTV). The site CCTV system was last expanded in 2012.

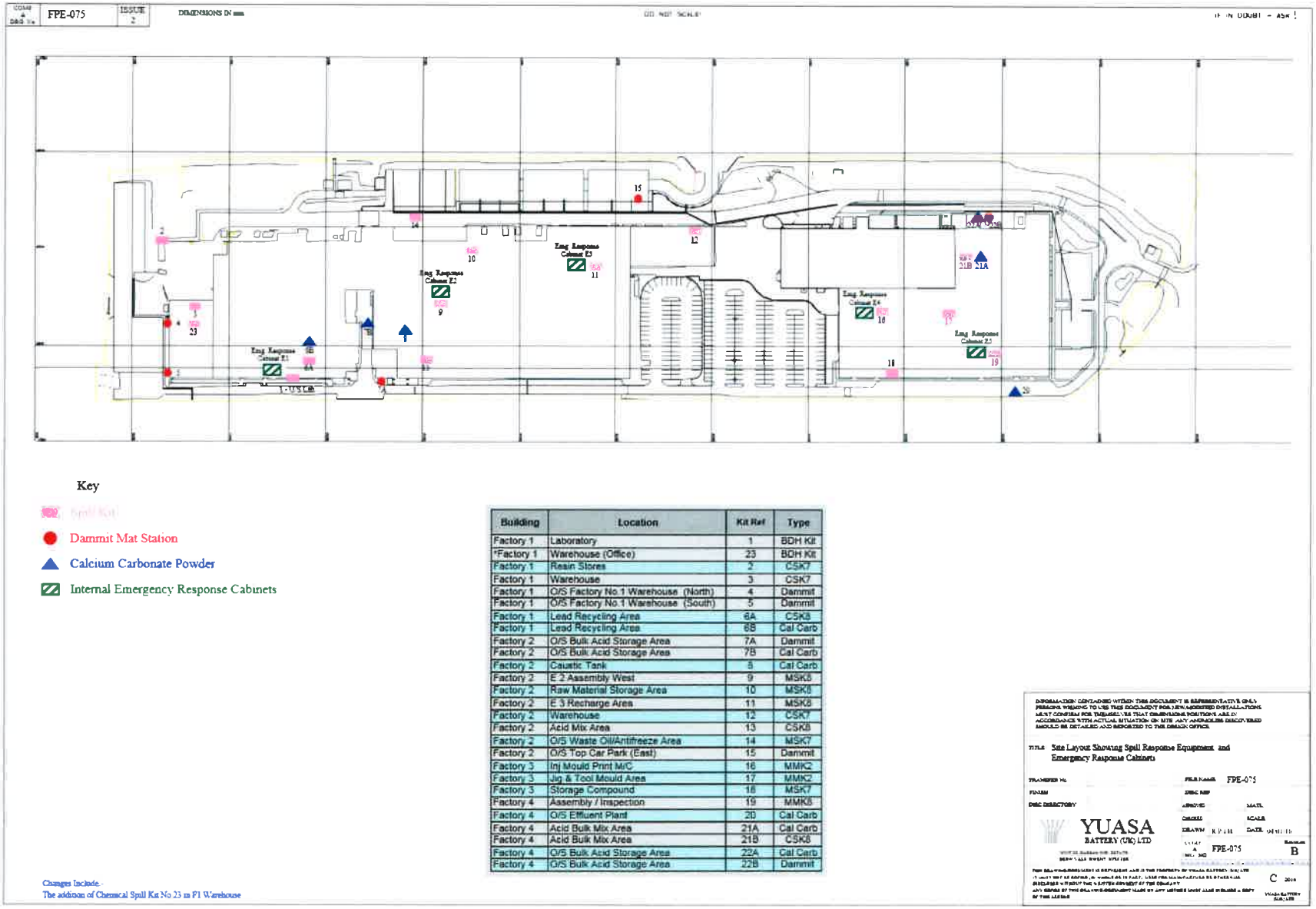
The site is currently considering storage of the majority of waste materials inside one building however, it is subject to agreement with the insurance company.



Finally, the company remains fully committed to continuous improvement of its processes with regard to the prevention of all potential fugitive emissions that could arise from its work activities.

End of report.

Appendix A - Updated Site Plan Including Spill Response Equipment



Key

- Spill Kit
- Dammit Mat Station
- Calcium Carbonate Powder
- Internal Emergency Response Cabinets

Building	Location	Kit Ref	Type
Factory 1	Laboratory	1	BDH Kit
*Factory 1	Warehouse (Office)	23	BDH Kit
Factory 1	Resin Stores	2	CSK7
Factory 1	Warehouse	3	CSK7
Factory 1	O/S Factory No.1 Warehouse (North)	4	Dammit
Factory 1	O/S Factory No.1 Warehouse (South)	5	Dammit
Factory 1	Lead Recycling Area	6A	CSK8
Factory 1	Lead Recycling Area	6B	Cal Carb
Factory 2	O/S Bulk Acid Storage Area	7A	Dammit
Factory 2	O/S Bulk Acid Storage Area	7B	Cal Carb
Factory 2	Caustic Tank	8	Cal Carb
Factory 2	E 2 Assembly West	9	MSK8
Factory 2	Raw Material Storage Area	10	MSK8
Factory 2	E 3 Recharge Area	11	MSK8
Factory 2	Warehouse	12	CSK7
Factory 2	Acid Mix Area	13	CSK8
Factory 2	O/S Waste Oil/Antifreeze Area	14	MSK7
Factory 2	O/S Top Car Park (East)	15	Dammit
Factory 3	Inj Mould Print M/C	16	MMK2
Factory 3	Jig & Tool Mould Area	17	MMK2
Factory 3	Storage Compound	18	MSK7
Factory 4	Assembly / Inspection	19	MMK8
Factory 4	O/S Effluent Plant	20	Cal Carb
Factory 4	Acid Bulk Mix Area	21A	Cal Carb
Factory 4	Acid Bulk Mix Area	21B	CSK8
Factory 4	O/S Bulk Acid Storage Area	22A	Cal Carb
Factory 4	O/S Bulk Acid Storage Area	22B	Dammit

Changes Include -
The addition of Chemical Spill Kit No 23 in F1 Warehouse

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TITLE Site Layout Showing Spill Response Equipment and Emergency Response Cabinets

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