

Joseph Ash Limited Accident Management Plan

Release scenario	Likelihood of occurrence	Consequence of occurrence	Actions taken to minimise the chance of it happening	Actions planned if the event does occur
Spillage during loading or unloading acid and other raw materials	Low risk	Potential contamination of site drains with acid solution	Written procedures have been prepared for tanker loading / unloading. All tanker transfers are supervised by competent (i.e. trained) staff.	The spill would be contained with booms. Any floor drains at risk of contamination would be covered and sealed.
Over-filling vessels	Low risk	Process vessels would over-flow and be safely contained in the bunds.	All vessel filling is supervised. The vessels are open and the fill operation would be stopped if there was a risk of overfilling.	As above.
Failure of plant and equipment	Medium risk	Failure of a process vessel could result in pollution of the underlying land or groundwater, though this would require two failures: the vessel and the floor/sump lining.	Process vessels are regularly inspected and maintained. All vessels are mounted within an inspection pit / sump or bund.	The most likely scenario would be a 'pin-hole' breach of the vessel as a result of corrosion. This would be noted either as the accumulation of liquid in the pit beneath the vessel or as a falling liquid level. The vessel would be emptied by pumping to road tanker and the damaged vessel repaired.
Failure of containment systems	Low risk	Failure of the galvanizing bath extract would release fume within the building. Failure (e.g. bag rupture) of a bag filter could result in a high particulate discharge.	All plant is maintained in accordance with a planned preventative maintenance (PPM) programme.	Fume is only released over the short period during which the steelwork is dipped into the zinc. If the extract fans failed during this period, the steel work would be lifted out of the galvanizing bath and it may be necessary for operatives to leave the work area until the fumes clear. The bag-filters are fitted with continuous reading particulate monitors. A bag filter failure would cause an alarm condition due to the increased particulate flow.
Failure to contain firewaters	Medium risk	Firewater run-off may pollute the surface drain at the perimeter of the site.	Due to the open molten zinc baths water would not be used to fight fires within the production building. Water may be used in office and other low risk areas of the site but the firewater run-off is unlikely to have significant contamination.	It is expected that most firewater run-off would enter site drains that connect to the municipal sewer system; gross contamination of the sewer is not anticipated. No specific action is planned to protect the surface drain though it would be monitored and action taken to minimise pollution if the need arose.

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Making wrong connection to drains or other systems	Low risk	Minimal consequence. There is no trade effluent discharge from the site and spillages in processes areas are captured in sumps for off-site disposal.	Up to date drainage plans are maintained. No engineering work can be initiated without approvals.	None planned.
Preventing incompatible materials coming into contact.	Low risk	Raw materials are charged to the baths in small quantities. The consequence of wrongly charge materials is therefore minimal, e.g. charging a zinc ingot to the flux or acid bath or charging a bag of flux to the acid bath. Manually charging acid additives or water to the galvanizing bath is considered improbable.	All bath-filling operations are supervised and undertaken by competent (i.e. trained) staff. It is not practicable to accidentally connect and discharge a bulk delivery of acid to the galvanizing bath; discharging acid to a flux or rinse bath would have minimal environmental impact.	Building evacuated and emergency services alerted.
Water ingress into molten Zinc	Low risk	There is no practicable means for significant quantities of water entering the galvanizing baths. Excess flux is drained from the steelwork, which is also dried prior to dipping. The production process is within a building and therefore rainwater ingress is considered unlikely.	The steelwork is held over the flux bath to allow drainage of access flux. The building roof is maintained to minimise the risk of rainwater ingress. Water is not permitted in the vicinity of the galvanizing baths.	None planned.
Un-controlled emissions	Low risk	The only emissions from the installation are fume during galvanizing. Failure of the extract system or bag filters could lead to an un-controlled emission but the environmental consequence would be minimal	Abatement systems are maintained in accordance with a PPM programme	The galvanizing operation would be halted and the equipment repaired.
Vandalism	Low risk	All production activities are carried out within the building, which is not readily accessible by the public.	The property is protected by CCTV cameras and burglar alarms and outside of production hours is monitored by a security firm.	The installation is secure and it is considered un-authorized entry would be unlikely.