



Environmental
Management
Services

Ineffective Spill Response Case Studies

Summary

Well trained spill response staff are an invaluable asset in preventing pollution. Untrained staff may lack the ability, or confidence to properly deploy the containment measures on site meaning a manageable spill escalates to an environmental/health and safety incident.

The following examples are case studies of spills which we have attended where spills were not dealt with correctly. If staff were adequately trained and on site procedures were followed all spills could have been dealt with far more effectively and would have had a fraction of the impact.

The images used are reconstructions based on actual events.



Case Study 1 - Spill Kit Deployed Incorrectly

We attended a spill where a drum of coolant had been penetrated and had migrated into a storm drain.

The storm run led to an interceptor, however because coolant is an oil water emulsion (and therefore doesn't float on water) it passed straight through the interceptor and was discharged directly into a river.

The first responder to the spill knew what and where a spill kit was and attempted to clean up the spill as best he could. However there were several mistakes made in his attempt at spill containment.

If the first responder understood that oil absorbents only absorb hydrocarbons he would have deployed the maintenance spill kit as opposed to the oil one. The oil absorbents he used were ineffective on the water based product and did not absorb the spill.

After placing the socks he left to alert his supervisor. By the time they returned the spill had passed under and shifted the socks and gone down the drain.

If he had laid the socks properly and understood they would not be 100% effective at containing the spill he could have taken further containment steps before leaving the scene to alert his supervisor.

If he had blocked the drains using a clay mat the liquid could have been contained on site and prevented an environmental incident.

With proper training these mistakes should not have happened and the environmental incident could have been avoided.



Case Study 2 - Empty Spill Kit

A common theme with spill kits is that they get used to clean up minor, non-emergency spills.

If small regular spills are unavoidable then a spill station should be installed, they provide easy access to absorbents and prevent spill kits being over used.

An incident we attended occurred when the spill kits on site had been depleted of stock and there was insufficient absorbents left to collect spilled material.



The spill had led to diesel pooling in a curbed area the diesel overflowed the curb and onto a grassed area - by the time we arrived on site (approximately 1 hour after the spill) the diesel had migrated into the soil and a minor remediation job had to be conducted.

If the spill kits had remained untouched there would have been sufficient stocks to safely absorb the spill.

Our training would have identified that there was no procedure in place to regularly check the contents of the spill kits on site.

Since then the client has commissioned us to conduct monthly spill kit audits and has installed several spill stations.

The photos show an example of a spill kit which we found on the first audit. Most of the absorbents had been used and people had been using it as a rubbish bin.

