

TOOLBOX TALK
NO.48
Pollution



In recent years there has been increased attention to pollution control. Lack of control leads to harm to persons and to the environment.

Sources of Pollution

1. Pollution can affect the air, land or watercourses.
2. Smoke, fumes, dust, exhaust emissions and vapours all pollute the air.
3. Uncontrolled use of chemicals, oils, fuels and other harmful substances can contaminate the land.
4. In some cases, land pollutants can enter water courses and pollute domestic water supplies many miles away.
5. Excessive noise levels are also regarded as a form of pollution.
6. Working with asbestos, lead and radiation are other sources of pollution for which strict control measures must be in place.

Question: **What substances do you use which could pollute the land?**

Control of Pollution

1. Always use harmful substances with care and dispose of used containers in the proper manner.
2. Store bulk quantities of substance such as diesel, oils, greases etc., upright and on a hard standing to avoid seepage of leaks and spills into the ground.
3. If practical, create a bund wall around the hard standing to prevent spillage reaching the surrounding land.
4. Try to avoid running plant powered by internal combustion engines inside buildings or in enclosed spaces – allow exhaust emissions to disperse.
5. Do not leave engines of plant running when they are not being used.
6. Electrically powered plant and equipment is more environmentally friendly.
7. Engine driven plant and equipment should be regularly serviced to stop or reduce leakage of oils and other fluids.
8. Place drip trays under engine-powered plant where necessary to avoid contamination of the land and, possibly, water courses.
9. Reduce noise levels arising out of your work activities where possible.
10. If you are aware of any leak or spillage of any substance which you believe could result in pollution, inform your supervisor immediately.

Question: **What practical measures can you take to prevent pollution?**

**SAFETY AS
STANDARD**

Cement and Concrete

What?

- ✘ cement and concrete are probably the most common materials used in construction
- ✘ cement is a highly alkaline material and is corrosive
- ✘ If cement or concrete is allowed to enter a watercourse in an uncontrolled manner, it can have a devastating effect on wildlife.

Why?

- ✘ avoid environmental harm: water contaminated with cement is highly alkaline and can be toxic to fish, plants and animals living in watercourses
- ✘ avoid environmental harm: cement particles entering a watercourse can clog fishes' gills and destroy their spawning grounds
- ✘ avoid prosecution: it is illegal to allow cement, unset concrete or washout water containing cement to enter a watercourse or drain.

Do

- ✓ be aware of all watercourses, gullies and drains before starting work
- ✓ store bulk and bagged cement and concrete additives at least 10 m away from watercourses, gullies and drains
- ✓ undertake mixing/batching works well away from watercourses, gullies and drains
- ✓ ensure watercourses, gullies and drains are protected from any nearby concreting works
- ✓ ensure special mixes are used for underwater concreting works
- ✓ use only designated areas for concrete washout and ensure concrete delivery drivers are aware of where they are

- ✓ where necessary, protect nearby drains against washout water running into them
- ✓ notify a line manager **IMMEDIATELY** if any concrete spillages or concrete washout are seen likely to cause pollution.

Don't

- ✘ hose down spills of concrete or cement into watercourses, gullies and drains
- ✘ allow washout water to flow into watercourses, gullies or drains
- ✘ allow ready-mix trucks to washout anywhere other than in areas designated for the purpose
- ✘ wash off any tools or plant in watercourses.

Spills!

There are several ways that hazardous substances can be spilled during construction operations and could lead to the pollution of storm water. The hazardous substances include paints, cleaners, petroleum products, hydraulic fluids, and solvents.

There are many ways that pollutants can enter the storm drainage system at a construction site. The most common ways are dripping from vehicles, disposal of waste material and accidental spillage. A very small amount of hazardous substance can pollute a very large quantity of water, so appropriate clean-up is important.