

Pollution control

SGN

4

This document is only a summary of its subject matter. You should not rely on this general guidance in isolation, and you should always seek detailed advice from an appropriate expert in relation to specific circumstances before any action is taken or refrained from. You may download and republish (in its full format) and print copies of the guidance – but you must not adapt any guidance.

Summary guidance for site operatives

Pollution control

Administration

- Unauthorised damage to protected trees is a criminal offence and could lead to enforcement action.
- Manage pollution control under the normal site risk assessment procedures and comply with the wider site safety rules.
- Where a significant risk of root protection area (RPA) contamination is identified, put pollution control measures in place to manage that risk.

Other relevant SGNs

- Monitor works in RPAs by the supervising arboriculturist (See *SGN 1 Monitoring tree protection*).

Important reminders

- Make provision for emergency spillage clean-up.
- Mix cement and wash vehicles as far away from RPAs as possible.
- Use bunding and impermeable membranes to prevent liquid contaminants reaching RPAs.
- Use impermeable membranes to prevent leachates from poured concrete contaminating RPAs.
- Keep pollution control measures in place until there is no significant risk of RPA contamination.

Explanatory notes and examples

Pollution control

Purpose

SGN 4 describes why pollution control is necessary, what form it will take, and how long it will remain in place to effectively protect retained trees, based on the recommendations in *BS 5837 (5.5, 6.2.4, 7.4, 7.5, and A.2)*.

General principles and clarifications

Pollution control is intended to prevent pollutants contaminating RPAs and it will be necessary wherever risk assessment identifies a significant risk of harm arising from this cause. Spilt solid or liquid chemicals that reach RPAs can kill existing roots and may prevent new roots growing, so provision will be made to minimise the risk of soil contamination within the normal risk management protocols for the site. If identified as necessary in the risk assessment process, pollution control measures will include physical means of containing spillages and procedures for clearing them up if they occur.

All cement mixing and vehicle washing points will be located outside RPAs, with provision to contain any spillages. Where the contours of the site create a risk of polluted water or toxic liquids running into RPAs, a precautionary measure of bunding or a frame, sealed with heavy-duty plastic sheeting sufficient to prevent contamination, will be used to contain accidental spillages. Where wet concrete is poured within RPAs, an impermeable liner will be used to prevent contamination of the soil from any leachate. Pollution control measures will remain in place until there is no significant risk of RPA contamination.

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SGN 4-01

The storage of fuels or any toxic chemicals is not permitted in RPAs.



SGN 4-02

Where fuel or other chemicals are stored on site, risk assessment will be carried out to identify if emergency spillage kits are needed to restrict the environmental impact of accidents.



SGN 4-03

Soil bunding or a supporting framework covered in heavy-duty plastic sheeting will be installed where there is a risk of spillages contaminating RPAs. This specifically applies to cement mixing areas and vehicle washing facilities.

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SGN 4-04

Cement washings are toxic to plants and must be contained in a way that prevents contamination of adjacent RPAs.



SGN 4-05

The leachate from poured wet concrete is toxic to plants and must be prevented from contaminating RPAs by using an impermeable membrane to stop any leakage into the soil.



SGN 4-06

When pouring wet concrete in RPAs, methods must be used to prevent spillage and contamination beyond the installation.

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SGN 4-07

Impermeable liners must be used to prevent contamination of the RPA from the leachate that originates from poured concrete.



SGN 4-08

Even small chemical spillages can harm trees, so provision must be made to capture all leakages at the point of storage.

Technical reference

Due to copyright restrictions, the relevant British Standard clauses are summarised, not quoted, as follows:

1. BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations: Clauses 5.5 (Tree protection plan), 6.2.4 (Additional precautions outside the exclusion zone), 7.4 (Permanent hard surfacing within the RPA), 7.5 (Special engineering for foundations within the RPA), and A.2 (Avoiding damage to trees), recommend:

- 5.5.6 To avoid contamination from pollutants, account should be taken of the effects of slope on the movement of potentially harmful liquid spillages towards RPAs.
- 6.2.4.3 Materials that could harm trees should be stored and handled well away from RPAs.
- 7.4.4.5 Concrete should not be poured within RPAs unless an impermeable liner has been installed to prevent contamination by the highly alkaline leachate.
- 7.5.5 Pile type should be selected to minimise the potentially toxic effects of uncured concrete, e.g. sleeved bored pile or screw pile.
- A.2.1 Care should be taken to avoid accumulating adverse impacts on retained trees from materials such as uncured concrete, diesel oil, and vehicle washings.