POLLUTION PREVENTION NOTE – CONSTRUCTION AND MAINTENANCE WORKS, Dec. 2019

Contents

This Guidance Note has been issued by Estates Services in order to advise members of the University and appointed contractors on the environmental aspects of construction and maintenance works.

1.0 INTRODUCTION

1.1 It is the responsibility of all individuals to comply with environmental regulations and prevent pollution of air, land and water. Pollution is avoidable with careful planning of operations, responsible waste management and suitable facilities to reduce the risk of spillage - along with simple precautions to deal with any spillages, should they occur.

1.2 The Scottish Environment Protection Agency (SEPA) has a policy of prosecuting in the event of incidents (even if accidental), with penalties of up to £20,000, or unlimited fines or imprisonment in serious cases.

1.3 The aim of this guide is to highlight the procedures applicable to all contractors and maintenance staff employed by the University, which must be followed in order to conform to all relevant legislation, to avoid the risk of prosecution.

2.0 SITE DRAINAGE

2.1 Any activities requiring the discharge of water to the drainage system should be identified prior to the commencement of any work, and discussed with the Estates Environment Office.

2.2 In planning and carrying out any work, precautions must be taken to ensure the complete protection of watercourses and groundwater against pollution. These should include an investigation of past use of the site to ensure that the operations will not disturb contaminated land, and a survey of the siting and contents of all storage tanks and pipelines. It is the contractor's responsibility to ensure that all drainage systems are correctly identified prior to the commencement of works, to avoid the possibility of incorrect disposal of contaminated water. The drainage systems at St Andrews is varied depending on location so advice should be sought prior to the commencement of works.

Any works that are carried out in a watercourse or adjacent to a watercourse may require a special licence from SEPA.

3.0 POLLUTANTS AND CHEMICAL STORAGE

3.1 Silt

Silt causes lasting damage to river life such as fish, insects and plants and can also build up to cause flooding. Water containing silt should never be pumped or allowed to flow directly into a river, stream or surface water drain. Silty water can arise from dewatering excavations, exposed ground, stockpiles, plant and wheel washing, site roads and disturbance of the riverbed. Where possible, silty water should be disposed of to the foul sewer with the prior agreement of the sewerage undertaker. Discharges to streams, watercourses or soakaways must have the approval of the University and SEPA, which should be obtained well in advance. Suitable treatment will be required, such as the use of a lagoon, tank or grassed area to settle solids.

3.2 Concrete and cement

Fresh concrete and cement are alkaline and corrosive and can cause serious pollution in watercourses. It is essential to ensure that the use of wet concrete and cement in or close to any watercourse or drain is carefully controlled so as to minimise the risk of any material entering the water, particularly from shuttered structures or the washing of equipment. The use of quick setting mixes may be appropriate. For long-term projects involving on-site concrete production, careful initial siting of concrete mixing facilities is vital. A settlement and recirculation system for water reuse should be considered. This will minimise the risk of pollution and reduce water usage.

Washing out and cleaning of concrete batching plant or ready mix lorries should be carried out in a contained area as far from the watercourse as practical. There must be no release of runoff from these facilities during their operation.

3.3 Oils, diesel and chemical storage

Oil and diesel pollution is the main cause of pollution incidents, and care should be taken to prevent vandalism and the risk of damage by manoeuvring vehicles on sites where oil is stored. Any oil storage tank and oil stored in drums should be sited on an impervious base within an oil-tight bund with no drainage outlet. All fill pipes, drawpipes and sight gauges should be enclosed within the bund, and the tank vent pipe should be directed downwards into it. All new oil storage facilities must comply with the Water Environment (Oil Storage) (Scotland) Regulations 2006.

Temporary fuelling and oil storage facilities must use bunded and double skinned tanks with all fill and emptying points locked safely at all times. These facilities must be accompanied by suitable spillage kits in the event of leakage and spillage.

3.4 Herbicides

The use of herbicides in or near rivers is not permitted.

3.5 Detergents

Wash waters from mobile pressure washers should not be discharged to surface water drains, watercourses or soakaways. Even if described as bio-degradable, detergents are not suitable for discharge to surface drains, so such activities should be carried out in designated areas draining to the foul sewer, subject to the approval of the Estates Environment Team and the local sewerage undertaker.

3.6 Heating and other cooling systems

Recirculated heating and cooling systems contain a variety of substances which are unsuitable for discharge to surface water drains, including corrosion inhibitors, biocides and anti-freeze. Any water from these systems should be drained only to the suitable foul sewer.

3.7 Dye Testing

Large quantities of dyed water used to test the integrity of the roofs and guttering should not be discharged into the surface water drainage system. After the completion of testing any dyed water should be diverted to foul sewer. Drainage dyes used to trace the routes of surface water drainage systems must be used sparingly to prevent undue discoloration of downstream watercourses.

3.8 Paints and varnishes

Paints, varnishes, glues, bituminous based substances, cleaning materials and other substances used in the maintenance and upkeep of buildings and roofs should not be allowed to be discharged to the surface water drains. Any unused or unwanted paint should be disposed of as special waste. On no account should any brush-cleaning agent, such as white spirit, be poured directly into the drains.

3.9 All other substances

It is the duty of the user to ensure that all substances that may be considered as potential pollutants should be used so that they may not be discharged to the drainage system or allowed to come into contact with the soil, without prior advice from the Estates Environmental Office.

3.10 Security

Vandalism and theft are frequent causes of pollution. Lockable valves must be fitted on all storage tanks, fences should be secure, and doors and gates kept locked. Where possible, materials should be stored under cover and potential pollutants should be transferred into safe storage without delay.

4.0 DELIVERIES

4.1 Special care should be taken during deliveries, particularly when hazardous materials are involved. Deliveries should be supervised at all times, tanks and containers should be labelled

with the nature and volume of their contents, and the levels should be checked before delivery to prevent overflowing.

4.2 Where possible, loading and unloading areas should be roofed and drained to the foul sewer. If not, they should be clearly marked and isolated from the surface water drainage system, either by catch-pits or sumps with isolating valves. Cut-off valves in the drainage system and raised kerb surrounds may be needed. Delivery pipes should be fitted with automatic cut-off valves to prevent overfilling.

5.0 WASTE STORAGE AND DISPOSAL

5.1 The Duty of Care for waste, as documented by environmental legislation such as the Duty of Care Regulations 1991 and The Environmental Protection Act 1990, is applicable to everybody; and above all, the whole process of waste generation should be given careful consideration in order to reduce the amount of waste initially generated. Subsequently, the re-use and recycling of the material that is then classified as waste must be contemplated. Further advice on this waste management aspect may be sought from the Estates Environmental Office.

5.2 To prevent fly tipping, producers of waste must ensure that it remains under their control until correctly disposed of. Contractors are to arrange for the removal of their waste by a registered waste carrier or to a licensed landfill site, in accordance with the Duty of Care provisions. Maintenance staff are to ensure that the waste that they generate is placed in the correct receptacle as provided by the University. Particular attention should be paid to waste that is designated as special waste under the Special Waste Regulations 1996 (and amendments), such as waste oils, which must be stored separately and disposed of by registered waste carriers using the required consignment note system.

5.3 All wastes must be stored in designated areas that are isolated from surface drains. The wastes should be placed into these areas so that accidental spillages will not occur, and that any loose material will not be subject to unwanted action by the elements. Also, precautions should be taken in order to ensure that the waste is not accessible to unauthorised individuals.

6.0 WILDLIFE CONSERVATION

6.1 All trees whose trunks are over 100 mm in diameter, hedges, ponds, streams and other wildlife features should be protected from damage during construction works, such as that arising from contact with machinery, chemical contamination or smothering by soil or other debris.

6.2 An Ecological Baseline Assessment of the Estate has been carried out and this can help shape any decisions about habitat loss during a development. This aspect should be considered in consultation with the Estates Environmental Office.

7.0 STATUTORY NUISANCE

7.1 Part III of the Environmental Protection Act 1990 contains the main legislation on statutory nuisance, and allows action on statutory nuisance to be taken by either local authorities or individuals. The following are statutory nuisances (although they may not be harmful):

1. Premises in such a state as to be prejudicial to health or a nuisance.

2. Smoke emitted from premises.

3. Dust, steam, smell or other effluvia from industrial, trade or business premises.

4. Any accumulation or deposit.

5. Noise emitted from any premises.

6. Noise from a vehicle, machinery or equipment in the street.

7. Any other matter declared by any enactment to be a statutory nuisance.

7.2 All individuals are to ensure that in the process of carrying out their duties they do not knowingly create what constitutes a statutory nuisance.

8.0 ENVIRONMENTAL INCIDENTS

8.1 Oil and Diesel Spills

Any person discovering a major oil or diesel spill should take the following immediate actions:

- If safe to do so, stop the flow if possible. Where a spillage occurs during a pipeline receipt, pumping should cease immediately.
- Prevent the spillage from entering the drains by seeking to contain the liquid, and try to protect surrounding soil and grassed areas from coming into contact with the material.
- Contact the Estates Helpdesk, on 0141 548 2164 who will arrange for despatch of the necessary spill kits to the site as soon as possible.
- If a major incident occurs that endangers site safety and the general public it may be necessary to call the emergency services as well as the Estates Helpdesk.

8.2 Reporting

Report the incident to your supervisor and keep a record of the incident.

9.0 CONTACT NUMBERS

Estates Helpdesk 0141 548 2164

Estates Environment Team 0141 548 4695