

Emissions and Discharges

1. Introduction

Emissions and Discharges generally refers to the liquid effluent, solid waste and airborne matter that is a by-product of a business's activity.

The University's Energy and Environmental Policy commits to *"Reduce the risk and minimise the impact from campus activities by controlling emissions, meeting regulatory standards and implementing emergency response procedures to prevent pollution"*.

Emissions and discharges include:

- Foul water effluents, sewage and grey water releases to the foul water system.
- Surface water discharges, rainwater run off from buildings and surfaces
- Emissions to air including gaseous and particulate releases from stacks, the CHP, fumes cupboards,
- Vehicle emissions – commuter vehicles, deliveries, public transport - particulate matter, NOX, SOX and other greenhouse gas emissions.
- Accidental releases (spills and leaks of hazardous substances e.g. oil, chemicals, gases)

Current control measures to reduce the impact of potentially polluting discharges and emissions and the key pieces of legislation include:

Table 1:

Emissions/Discharges	Responsible Party	Current Control Measure
Sewage and grey water – trade water effluent	Thames Water Estates	Reduction of wastewater by managing consumption. Water Management Plan. Maintenance and servicing by Estates
Rainwater runoff from buildings and surfaces	Infrastructure managed by Estates	Regular maintenance and servicing of drainage infrastructure – interceptors and grease traps.
Stack emissions – from boilers, CHP, fume cupboards.	Estates and Schools	Design and specification Appropriate use of fume cupboards Compliance Testing and Servicing by Estates
Vehicle emissions – commuter vehicles, deliveries, public transport.	Vehicle owner responsibility. Procurement Vehicle manager	Reduce deliveries via contracts/agreements Travel Plan/Policy Carbon reduction plan Fleet vehicle management
Refrigeration gases – accidental release	Estates and contractor	Compliance testing & servicing by Estates
Accidental releases (spills and leaks of hazardous substances e.g oil, chemicals, gases)	Estates and School	Spills Plans Spill Kits Inspections of fuel tanks, stores and interceptors.
A list of incidents related to the accidental release of hazardous substances can be found in appendix A		

Setting a target for emissions and discharges from accidental or unforeseen releases of substances hazardous to the environment is harder to achieve. Efforts to reduce the risk of emissions and discharges needs to be preventative, but also there is work that can be done on making sure that when an incident occurs, we are well prepared and can respond to an incident effectively to reduce the severity of the incident.

Half of all incidents in the last 5 years can be attributed to University activities (see table 2). Other incidents can be attributed to contractors, suppliers and staff vehicles. Between 1 and 3 incidents per year have directly emanated from University activities.

Table 2:

	2017	2018	2019	2020	2021	2022
Contractor/Supplier	1	3	0	1	0	0
University	1	3	2	1	1	1
Other/Unknown	0	1	2	0	0	1

2. Plan

Aim: To reduce the impact of emissions and discharges on the environment. The University aims to control and reduce emissions where possible by maintaining infrastructure to meet regulatory standards and to prevent pollution from incidents originating from university activities and those of its tenants by implementing plans to eliminate or reduce emissions.

Objective: The University will limit the number of incidents and non-conformities raised regarding emissions and discharges from university activities. The University will respond quickly and appropriately to reduce the impact of unforeseeable instances and work to ensure incidents are prevented in the first place.

KPI: Number of reported pollution incidents.

Target: No more than 3 incidents from University activities on a rolling 3 year average. The response to incidents will be prompt and efficient to reduce the impact on the environment which will in turn save on clean up costs.

- Actions:**
1. Ensure schools and functions have Spill Plans in place where appropriate by July 2023. See H&S CoP 55 on Spill Management.
 2. Issue Pollution Prevention Guidance document. Sustainability Services to action by December 2022.
 2. Undertake spill response training for Estates staff. Full training every 4-5 years with a refresh session at least every two years. Full training completed in May 2022, next full training session due May 2026.
 3. Continue to implement Zero Carbon Plan, Water Management Plan, Travel Plans and Waste Strategy as per the targets set out in the respective documents.
 4. Continue with the programme to inspect and maintain interceptors. Priority plan being rolled out by Building Maintenance over the next 5 years.
 5. Regular inspections of oil tanks via PPM with full inspection every 5 years. Last inspection undertaken in 2020.
 6. Continue to service and maintain boilers, refrigeration units, AC-units etc in line with statutory requirements. Effective checks to be completed via annual internal environmental audit.
 7. Ensure University vehicles have spill kits on board. Checked annually via Internal Environmental Audit.
 8. Contact those suppliers and contractors that transport or use hazardous substances to ensure they have the right procedures and spill kits in place. Sustainability to action by July 2023.
 9. Continue to audit and identify issues before they present an issue via annual internal environmental auditing programme.
 10. Sign up as a Clean Air Day (CAD) supporter and commit to actions that will mitigate our contribution to air pollution. CAD is the largest air quality campaign in the UK, run by Global Action Plan (GAP). <https://www.actionforcleanair.org.uk/campaigns/clean-air-day>

Review: This plan will be reviewed as part of the EEMS Management Review and will be audited as part of the annual internal EEMS audit.

VERSION	DATE ISSUED	BY	APPROVED BY	REVIEW FREQUENCY	NEXT REVIEW DATE
V1.0	July 2022	Anna Glue	EMRG	Annual	July 2023

Appendix A

Accidental releases in the last 5 years:

Ref No.	Location/Department	Summary of Incident	
2017-09a	Events – Dome Site	Spill of hydraulic oil from contractor operated telehandler at dome site.	Contractor
2017-09b	Greenlands	Small leak from heating oil tank.	University
2018-01	Greenlands	Small oil spill at Greenlands	University
2018-03	Agriculture Building	Diesel leak from vehicle at Agriculture building	Unknown
2018-06	Catering/Russell Building	Oil leak from Eat vehicle at Russell Building	University
2018-07b	Projects/Peper Lane	Oil leak from contractor's vehicle at Pepper Lane entrance	Contractor
2018-11b	RUSU yd/HBS road/Catering	Spill of oil or fuel on to roadway by HBS and in RUSU Yd	Supplier
2018-11a	Quad/Venue Reading	Spill of cooking oil and spill of vehicle oil	Supplier
2018-12	Greenlands	Greenlands sewage pumping outage	University
2019-05a -	WK Lake - Maintenance	Discoloured water in Whiteknights lake – sediment run off from nearby ground works.	University
2019-05b -	URS	Oil/fuel leak from vehicle at URS	Unknown
2019-05c -	London Road	London Road moped – oil/fuel spill	Staff
2019-11	Building Maintenance	F-gas leak from compressor at Enterprise Centre	University

2020-08 -	Off site – Thames Water	Thames Water sewage leak from Shinfield Road on to Campus	Thames Water
2020-11	Typography – TOB2	Leak from oil containers in cupboard	University
2021-04	Chemistry Stores	Falcon tube smashed on the road outside stores. Unknown fine, white powder.	University
2022-01	Sherfield Halls	Wastewater was overflowing into nearby stormwater drain, which lead into a pond located behind the hall.	University
2022-02	Sherfield Halls	Oil spill found in drainage pond near Sherfield	Unknown