

POLLUTION PREVENTION

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INTRODUCTION

1 Environmental pollution can take many forms, such as the pollution of air, water or land. In the Environmental Permitting Regulations 2010 (EPR) Pollution (except for water discharge or groundwater activities) is defined as “any emission as a result of human activity which may:

- be harmful to human health or the quality of the environment,
- cause offence to a human sense,
- result in damage to material property, or
- impair or interfere with amenities and other legitimate uses of the environment”

Pollution in relation to a water discharge activity or groundwater activity, means the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land, which may

- be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems,
- result in damage to material property, or
- (impair or interfere with amenities or other legitimate uses of the environment;

2 Pollution is commonly thought of as the release or transfer of chemical substances which can cause harm to any living organism; however pollution can also take the form of energy, including noise, light, heat as well as smoke and fly tipping. Noise, light and smoke can also be classed as statutory nuisances and further information on MOD Policy on these can be found in JSP 418 leaflet 4.

3 This leaflet sets out MOD commitments, policy and procedures to prevent environmental pollution. This leaflet supersedes previous leaflets on Integrated Pollution Prevention and Control, Local Air Quality and Water Pollution.

4 For the purpose of this leaflet Commanding Officer (CO)/Head of Establishment (HoE) will be used to describe the person who has ultimate responsibility for the site's safety and environment¹

5 For the purpose of this leaflet Environmental Protection Advisor (EPO) will be used to describe the person for whom responsibility for Pollution Prevention is delegated to by the CO/HoE, please note this could be the Safety, Health, Environment and Fire (SHEF) advisor or equivalents.

MOD POLICY

6. It is MOD Policy to comply with the provisions of relevant environmental legislation².

7. Where required by legislation it is MOD policy to obtain permits, authorisations and licences and to fully comply with the terms and conditions of the permit, authorisation or licence at all times.

8. Potential pollution risks shall be identified and appropriate management procedures, put in place to effectively minimise risk.

9. Information on potential pollution risks and appropriate management procedures will come from a range of different sources including: permits, authorisations and licenses, environmental management systems (EMS) and sustainability appraisals and environmental assessments. The establishment EMS should be used to monitor management of significant pollution risks. MOD policy guidance on EMSs can be found in JSP 418 Leaflet 1.

10. Processes must be in place such that in the event of a pollution incident immediate action is taken to contain the hazardous substance and appropriate action is taken to prevent/minimise any environmental damage. Where there is an imminent or actual threat of environmental damage occurring the relevant regulatory authority should be immediately informed. Annex B provides further details on the Environmental Damage (Prevention and Remediation) Regulations 2009 including the definition of 'environmental damage'. The incident will also be reported up the HoE/CO TLB/TFA chain of command and logged on the MOD Incident Reporting Information System (IRIS). Please note in the event of a fuel spill reporting protocols in JSP 317 should be followed.

¹ Safety and Environment as defined in [JSP 815](#) Chapter 1 Para 5

² [SoS Policy Statement](#) - Safety, Health, Environmental Protection and Sustainable Development

RESPONSIBILITIES FOR CHAPTER USERS

11. In many cases responsibility for the management and prevention of pollution is transferred out to contractors as part of contractual arrangements, such as Project Aquatrine, MAC, SMAC, RPC, hybrid equipment/maintenance contracts. However the following responsibilities apply:

Top Level Budget Holders/Trading Fund Agency

12. Each TLB/TFA has a duty to the Secretary of State to ensure that there are processes in place to protect the health, safety and welfare of personnel, contractors and visitors on their establishments and to protect the environment.

13. In order to discharge their duties with regard to environmental protection each TLB/TFA should:

- Ensure that there is sufficient funding provided to put in place appropriate processes to manage significant pollution risks.
- Ensure that where a significant pollution risk is identified action is taken to reduce and control those risks to an acceptable level including incident management plans.
- Have a process in place to monitor and report the management of significant pollution risks.
- Ensure that staff have the appropriate level of training, knowledge and awareness of pollution risks and appropriate management processes.

14. TLB/TFA's CESOs or equivalents are responsible for disseminating Pollution Prevention and Control policy in their TLB/TFAs, providing assurance of compliance in line with the MOD process ownership model.

Commanding Officer/Head of Establishment

15. The Commanding Officer/Head of Establishment has a duty to the Secretary of State, and a personal responsibility, to ensure the health, safety and welfare of personnel, contractors and visitors on their establishments and to protect the environment.

16. In order to discharge their duties with regard to pollution control the Commanding Officer/Head of Establishment should:-

- Ensure that a pollution risk assessment has been carried for all activities carried out on their site.
- Ensure that appropriate management systems are in place to minimise pollution risks and emergency measures/procedures are in place to reduce significant risk associated with activities carried out on their site

- Ensure that where required Environmental Permits/authorisations/licences are obtained and that the conditions are complied with.
- Ensure that where required personnel are appropriately trained and competent and full aware of their specific role and responsibility.
- Where significant pollution risks have been identified appoint an Environmental Protection Officer (EPO) and/or Safety, Health Environment and Fire (SHEF) Advisor to advise on management procedures and report back on effectiveness of the measures.

17. In the event of a pollution incident, or breach of consent, it is possible for an individual, CO/HoE to be held liable under criminal and/or civil law if it is deemed that he/she has acted negligently in carrying out their duties. The CO/HoE should ensure that interfaces and contractual arrangements between all parties working on their sites are co-ordinated to minimise pollution risks.

18. Environmental Protection Officers (EPOs) and/or Safety, Health Environment and Fire (SHEF) Advisors or equivalents should:

- Ensure that potential environmental pollution risks are identified, usually as part of the site's Environmental Management System, and appropriate processes and procedures have been put in place to minimise risks.
- Where required ensure a unit spillage response plan is in place (usually as part of the site EMS) and ensure monitoring and reporting procedures are in place.
- Where required ensure Environmental Permits, authorisations and licences are obtained on behalf of the CO/HoE, and ensure that permits/authorisations/licences have not expired and that the conditions are complied with.

19. All MOD staff and contractors have a responsibility to ensure pollution is prevented from occurring and may be held responsible in cases of negligence or contravention of MOD policy.

Land Contamination

20. Under the process ownership model, 2nd PUS has discharged responsibility for Contaminated Land to Defence Estates Chief Executive. In the event of land contamination occurring or being discovered, please contact Defence Estates.

Management of Fuels and Gases

21. The MOD is a major user of petroleum, and subsequently is one of the MODs main pollution risks. Under the process ownership model, 2nd PUS has discharged responsibility for Fuels and Gases to the Chair of the Defence Fuels and Gases functional safety board.

22. Guidance on the safe storage, handling and use of fuels and gases can be found in [JSP 317](#) (Fuels and Lubricants) and [JSP 319](#) (Gases); links are attached below.

Major Accident Control Regulations (MACR) and Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)

23. For units/establishments where MACR ([JSP 498](#)) or DSEAR ([JSP 375, leaflet 56](#)) applies, more stringent arrangements will be required and appropriate JSPs should be referred to.

Project Aquatrine

24. Project Aquatrine is a MoD-wide Water and Wastewater PFI project which covers 85% of the GB estate. Some MOD sites are excluded; these include but are not limited to:

- Northern Ireland;
- Overseas Estate;
- US Forces;
- Sites with no water or wastewater services i.e. radio masts.

25. For further detail on Project Aquatrine including which sites are in the scope, for further information please contact the Aquatrine PMO at Defence Estates. DE can be contacted on 0121 311 2140.

INTERNATIONAL AND UK LEGISLATION

EU Legislation

Integrated Pollution Prevention and Control Directive (IPPC) 2006

26. The IPPC Directive was created to prevent or minimise emissions to air, water and soil, as well as waste, from industrial and agricultural installations in the Community, with a view to achieving a high level of environmental protection.

27. The IPPC Directive defines the basic obligations to be met by all the industrial installations concerned, whether new or existing. These basic obligations cover a list of measures for tackling discharges into water, air and soil and for tackling waste, wastage of water and energy, and environmental accidents. They serve as the basis for drawing up operating licenses or permits for the installations concerned.

28. As of 2008 the IPPC Directive was codified (Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning Integrated Pollution Prevention and Control). The codified act includes all the previous amendments to the IPPC Directive and introduces some linguistic changes and adaptations. The substance of the IPPC Directive has not been changed and the adopted new legal act is without prejudice to the new Proposal for a Directive on Industrial Emissions.

29. In the UK the Pollution Prevention Control (PPC) Act 1999 enabled regulations to be made to implementing the IPPC Directive, which saw the passing of following Regulations:

- Pollution Prevention and Control (Scotland) Regulations 2000: the SEPA website provides further details including a list of amendments
http://www.sepa.org.uk/air/process_industry_regulation/pollution_prevention_control/legislation.aspx
- Pollution Prevention and Control (Northern Ireland) Regulations 2003: <http://www.ni-environment.gov.uk/pollution-home/ippc.htm>
- The Pollution Prevention and Control (England and Wales) Regulations 2000: Repealed by the Environmental Permitting Programme (EPR) 2007, Annex A has further information on the EPR.

E-PRTR

30. A new European Regulation on Pollutant Release and Transfer registers entered into force on the 24 February 2006 (E-PRTR Regulation) with the aim to enhance public access to environmental information through the establishment of a coherent and integrated electronic database. The E-PRTR succeeds the European Pollutant Emission Register (EPER) under which data were reported for the years 2001 and 2004. Further information on the UK implementation of this regulation can be found at <http://prtr.defra.gov.uk/>.

UK Air and Water Policy

31. The EU and subsequently the UK has been very active in improving “local air quality” in recent years. The UK Government and the devolved administrations published the latest Air Quality Strategy for England, Scotland, Wales and Northern Ireland in 17 July 2007 - setting out a way forward for work and planning on air quality issues and the air quality standards and objectives to be achieved; introducing new policy framework for tackling fine particles and identifying potential new national policy measures.

32. The UK Air Quality Strategy can be viewed at:

<http://www.defra.gov.uk/environment/quality/air/airquality/index.htm>

33. Government Policy on Water Policy is now decided by Devolved Administrations, a list of relevant legislation is available at Annex B; however the following policy/strategy documents have been produced by England and Northern Ireland

- In 2008 England published its Strategy for water entitled *Water Future: A Water Strategy for England*
<http://www.defra.gov.uk/environment/quality/water/strategy/pdf/future-water.pdf>
- Northern Ireland sets its water policy out in the document ‘Managing the Water Environment in Northern Ireland 2000, this and other information can be found at <http://www.ni-environment.gov.uk/water-home/water-policy.htm>

34. Please see annex B for a list of UK legislation pertaining to Pollution Prevention.

Annex A

Environmental Permitting Programme (England and Wales Only)

Background

1. Pollution from industrial installations in England and Wales has been controlled to some extent for over 150 years. The Pollution Prevention and Control (England and Wales) Regulations 2000 (the "PPC Regulations") were introduced under the Pollution Prevention and Control Act 1999 and built on existing systems. The PPC Regulations replaced the previous Integrated Pollution Control (IPC) and Local Air Pollution Control regimes which had been set up under Part I of the Environmental Protection Act 1990 (EPA 1990). The PPC Regulations also transposed the Integrated Pollution and Prevention and Control Directive (now Directive 2008/1/EC) – the "IPPC Directive" into UK national legislation, the primary aim of which was to ensure a high level of environmental protection and to prevent and where that is not practicable, to reduce emissions to acceptable levels.

2. In England and Wales the PPC 2000 Regulations were replaced on 6 April 2008 by the Environmental Permitting Regulations 2007 (EPR), which in turn were replaced by the EPR 2010. The new Regulations bring together the PPC, Waste Management and groundwater and discharge consents licensing and permitting into one new regulatory system. A permit issued under the PPC or other repealed Regulations will in future be regarded as having been issued under the EPR, therefore where permits have already been issued no action is required.

3. Along with the PPC Regulations the following laws and their amendments have been revoked:

- Waste Incineration (England and Wales) Regulations 2005,
- Large Combustion Plant (England and Wales) Regulations 2002,
- Pollution Prevention and Control (Public Participation) Regulations 2005,
- Landfill Regulations 2000,
- Waste Management Licensing Regulations 1994,
- Environmental Protection (Prescribed Processes and Substances) Regulations 1991 and
- Environmental Protection (Applications, Appeals and Registers) Regulations 1991
- The Radioactive Substances Appeals Regulations 1990
- The Groundwater (England and Wales) Regulations 2009

4. Environmental Permitting Regulations split affected industrial operations into three categories:

- Part A(1) Activities - The Environment Agency regulates what is considered to be the most polluting of the three industrial categories, A(1) activities. These regulate emissions to air, land, water along with other environmental considerations e.g. level of noise, dust and targeted reductions in the use of certain polluting chemicals.

<http://www.environment-agency.gov.uk/business/topics/permitting/default.aspx>

- Part A(2) & B activities are regulated by Local Authorities and are covered in more detail below.

5. For further guidance on determining whether your installations or activities fall under A1, A2 or Part B guidelines please go to

http://www.opsi.gov.uk/si/si2010/pdf/uksi_20100675_en.pdf

Local Authority Integrated Pollution Prevention Control & Local Authority Pollution Prevention Control

6. LA-IPPC is concerned with controlling the environmental impact of installations which carry out any activities listed under the Part (A2) activities. A list of sectors and associated guidance is available on the DEFRA website at –

<http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/notes/pgnotes/index.htm>

7. LAPPC is concerned with controlling the environmental impact arising from pollution emitted from installations into the air only (as opposed to LA-IPPC which covers emissions to all three environmental media (Air, Water and Land) but to a lesser degree than installations controlled under Part A1). A full list of Processes and associated guidance is available on the DEFRA website at –

<http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/notes/snotes/index.htm>

MOD Policy & Guidance

8. It is MoD policy to obtain permits where required and to fully comply with the terms and conditions of the permit at all times

9. Site Environmental Protection Officers (SEPO) and/or SHEF advisors, are required to review the lists of activities covered by the Environmental Permitting Regulations, to determine which may take place on their sites, and to ensure that where required permits have already been obtained.

Further Information

10. Pollution Prevention & Control

<http://www.defra.gov.uk/environment/quality/pollution/ppc/index.htm>

11. Environmental Permitting – General Guidance Manual for A2 & B Installations:

<http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/manuals.htm>

Annex B

Other Legislation

Primary UK legislation

Legislation Type	Name	Description	Application	Links
Act	Environmental Protection Act 1990	<p>Defines within England, Scotland and Wales the legal framework for duty of care for waste, contaminated land and statutory nuisance and control of emissions into the environment.</p> <p>Part 1 of the Act was repealed by the Pollution Prevention Control Act 1999</p> <p>Part 2 outlines the regime for licensing and regulating the acceptable disposal of controlled waste on land. There is also a broad Duty of Care that is prohibited by criminal sanctions.</p> <p>Part 2A was inserted later by the Environment Act 1995 (see below) and defines a scheme of identification and compulsory remedial action for contaminated land.</p> <p>Part 3 outlines a list of statutory nuisances over which local authorities can demand remedial action.</p> <p>Part 4 lists criminal offences concerning litter and littering.</p> <p>Part 6 is concerned with genetically modified organisms.</p> <p>Part 7 created three new organisations regarding Nature Conservation.</p> <p>This act supersedes the act mentioned above (Health and Safety at Work Act 1974) with respect to controlling noxious emissions.</p>	UK Wide	http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900043_en_1.htm
Act	Clean Air Act 1993	<p>The Clean Air Act gives powers to local councils to control domestic and industrial smoke to improve local air quality and meet EU air quality standards for sulphur dioxide and particulates. It enables local councils to create 'smoke control areas' and order the use of cleaner fuels in these areas.</p> <p>Bans the emission of dark smoke from chimneys and industrial or trade premises.</p>	UK	http://www.opsi.gov.uk/acts/acts1993/ukpga_19930011_en_1

Legislation Type	Name	Description	Application	Links
Act	Environment Act 1995	Establishes and gives power to the Environment Agency and Scottish Environment Protection Agency; and inserts part 2A into the Environmental Protection Act 1990.	UK Wide	http://www.opsi.gov.uk/acts/acts1995/ukpga_19950025_en_1
Act	Pollution, Prevention Control Act 1999.	The Pollution Prevention and Control (PPC) Act 1999 enables regulations to be made implementing the EC Integrated Pollution Prevention Control Directive (IPPC) 1996. More specifically Sections 1 and 2 of the Act confer on the Secretary of State power to make regulations providing for a new pollution control system to meet the requirements of the IPPC Directive and for other measures to prevent and control pollution.	UK Wide	http://www.opsi.gov.uk/acts/acts1999/ukpga_19990024_en_1

Other Legislation

Legislation Type	Name	Description	Application	Links
Act	Control of Pollution Act 1974 40 Part III	Sets out local authorities' duty to inspect and exercise powers concerning noise abatement zones, and the process for dealing with excess noise and noise from construction sites.	Scotland	Not available on line
Regulation	Pollution Prevention and Control (Scotland) Regulations 2000	Implements the EC IPPC 1996 Directive: Sets out a system to control pollution from any installation or mobile plant carrying out specified activities through permits, inspections and control of emissions.	Scotland	http://www.opsi.gov.uk/legislation/scotland/ssi2000/20000323.htm Link to SEPA Pages: http://www.sepa.org.uk/air/process_industry_regulation/pollution_prevention_control/legislation.aspx

Legislation Type	Name	Description	Application	Links
Regulation	Pollution Prevention and Control (Northern Ireland) Regulations 2003	Sets out a pollution control regime which implements the EC IPPC directive 1996 and regulates other polluting activities not covered by the Directive. The regulations came into force in 2003 and were amended in 2004 and 2007 to include additional activities.	Northern Ireland	http://www.opsi.gov.uk/sr/sr2003/20030046.htm
	Water Industry Act 1991	Controls premises discharging liquid effluent to the sewer. All three pieces of Legislation require that all organisations discharging effluent into the sewerage system obtain trade effluent discharge consent from the appropriate Water Company in England and Wales, the appropriate Regional or Island Council in Scotland or the DoE (NI) in Northern Ireland.	England and Wales	http://www.opsi.gov.uk/acts/acts1991/Ukpga_19910057_en_1.htm
	Water Industry Act (Scotland) 2002		Scotland	http://www.uk-legislation.hmso.gov.uk/legislation/scotland/acts2002/asp_20020003_en_1
	The Water and Sewerage Services (Northern Ireland) 2006		Northern Ireland	http://www.opsi.gov.uk/si/si2006/20063336.htm#sch13?lang=_e
	Water Resources Act 1991	Controls any discharges (not covered by PPC or EPR) to surface and ground waters, estuaries and coastal waters, and controls abstracting and impounding water. Industrial operators have to pay the cost of repairing damage caused by their polluting discharges. The relevant regulatory body (EA, SEPA or the department of Environment NI) is responsible for controlling discharges to waterways through providing consents and monitoring compliance. Also controls the abstraction of water from any sources.	England and Wales	http://www.opsi.gov.uk/acts/acts1991/Ukpga_19910057_en_1.htm
	Water Environment (Controlled Activities) (Scotland) Regulations 2005		Scotland	http://www.opsi.gov.uk/legislation/scotland/ssi2005/20050348.htm?lang=_e
	Water (Northern Ireland) 1999 (amended 2004)		Northern Ireland	Northern Ireland - Water Order

Legislation Type	Name	Description	Application	Links
Act	The Water Act 2003	Sets out the framework for abstraction licensing, regulates impoundments, increases competition in water supply and includes measures for drought management and flood defence work in England and Wales	England & Wales	http://www.opsi.gov.uk/acts/acts2003/ukpga_20030037_en_1 Water Act leaflet - http://www.environment-agency.gov.uk/business/topics/water/32030.aspx
Regulation	Groundwater Regulations 1998	Empowers the Environment Agency in England and Wales and SEPA in Scotland to prevent direct or indirect discharge of certain dangerous substances to groundwater and control pollution resulting from the discharge of those and other substances.	England, Wales and Scotland	http://www.opsi.gov.uk/si/si1998/19982746.htm
	The Groundwater Regulations (Northern Ireland) 1998		Northern Ireland	http://www.opsi.gov.uk/sr/sr1998/19980401.htm
Regulation	Groundwater Regulations (Northern Ireland) 2009	Brings Article 6 of EU Groundwater Directive 2006 into force. Legislation makes it an offence to discharge hazardous substances and non-hazardous pollutants to groundwater without a permit, replacing 'List I and II dangerous substances'. Amends authorisation process.	Northern Ireland	http://www.doeni.gov.uk/groundwater_regulations_northern_ireland_2009.pdf.pdf
Regulation	Environmental Damage (Prevention and Remediation) Regulations 2009	Implements the EC Environmental Liability Directive 2004, which aims to achieve the prevention and remedying of environmental damage - specifically, damage to habitats and species protected by EC law, damage to species or habitats on a site of special scientific interest for which the site has been notified, damage to water resources and land contamination which presents a threat to human health. It reinforces the "polluter pays" principle - making operators financially liable for threats of or actual damage.	England & Wales	http://www.opsi.gov.uk/si/si2009/ukSI_20090153_en_1
	Environmental Liability (Scotland) Regulations 2009		Scotland	http://www.opsi.gov.uk/legislation/scotland/ssi2009/ssi_20090266_en_1

Legislation Type	Name	Description	Application	Links
	Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009	<p>Under the terms of the Directive, environmental damage is defined as:</p> <ul style="list-style-type: none"> • direct or indirect damage to the aquatic environment covered by Community water management legislation; • direct or indirect damage to species and natural habitats protected at Community level by the 1979 " Birds " Directive or by the 1992 " Habitats " Directive; • direct or indirect contamination of the land which creates a significant risk to human health. <p>An exemption does exist in the case of damage occurring due to “an act of terrorism, armed conflict, civil war, insurrection or hostilities”</p> <p>This exemption in the England & Wales regulation reads differently – exempting damage occurring due to “activities the main purpose of which is to serve national defence or international security”</p>	Northern Ireland	http://www.opsi.gov.uk/sr/sr2009/nisr_20090252_en_1

ANNEX C

ASSURANCE QUESTIONS

The purpose of these question sets is not for delivery bodies to provide answers to each question. However, they should be useful for the delivery body in stating their assurance level. If full assurance cannot be given, a short explanation of the problem area/s and the actions which are being taken to improve the assurance level is required.

Questions

1. How are legislative requirements met and updated?
2. Which sites have the largest pollution risks? What procedures are in place to prevent and minimise any incidents? How are pollution risks monitored and communicated throughout the TLB/TFA?
3. How do TLBs/TFAs manage incidents?
4. What site processes are in place to deal with a pollution incident immediately? At which point are regulating authorities notified after an incident?
5. What is the review process undertaken by the Environmental Protection Officer (EPO) and/or Safety, Health Environment and Fire (SHEF) Advisor for the management of significant pollution risks?
6. How many sites during the last annual reporting audit period received either no assurance or limited assurance? How is this being remediated?
7. On the basis of your responses to the questions, and the guidance that is provided in JSP 418, what level of assurance do you believe applies for your compliance with this policy area?

DIA Assurance Classifications

- **Full assurance** - The frameworks of governance, risk management and control should ensure effective, efficient and economic achievement of the business objective. Risks that threaten the achievement of that objective are adequately managed.
- **Substantial Assurance** - Weaknesses identified in governance, risk management or control frameworks. Achievement of the business objective is threatened by inadequate management of medium or low category risks.
- **Limited Assurance** - Weaknesses identified in governance, risk management or control frameworks. Achievement of the business objective is threatened by inadequate management of high category risks.
- **No Assurance** - The frameworks of governance, risk management and control do not support effective, efficient and economic achievement of the business objective