



Operational Safety Instruction

De-icing Fluid Management Reporting Procedures

07th April 2017

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v1.0

It is the responsibility of all employers to ensure that relevant OSIs are brought to the attention of their staff. However, individuals remain responsible for their own actions and those who are in any doubt should consult their Supervisor or Manager.

1. Introduction

- 1.1 The purpose of this OSI is to make de-icing service providers aware of their responsibilities in respect of de-icing media usage.
- 1.2 Heathrow has legal duties to monitor and regulate its operation, and the reporting of de/anti-icer usage is a statutory requirement within Heathrow's Environment Permits. The collection of this data facilitates a comprehensive database relating to de/anti-icing fluid management at Heathrow, including daily and monthly records.
- 1.3 In addition, this document also seeks to remind all airport companies of their responsibilities and the minimum requirements in relation to the prevention of a chronic pollution incident.
- 1.4 This OSI replaces OSI/02/13, which is now cancelled.

2. Definitions

Abbreviation	Description
AEA	Airside Environmental Advisor
AEM	Airside Environment Manager
Anti-icing	The application of a protective film of undiluted de/anti-icing fluid to a 'clean' surface. This is normally used to minimise and/or prevent the build-up of frozen deposits, when certain weather conditions are forecast. This approach can reduce the need for subsequent de-icing
De-icing	The application of a film of diluted de/anti-icing fluid to a surface for the removal of frozen deposits
Type	The product specification of the de/anti-icing material in the form of a Non-Newtonian fluid. A Non-Newtonian fluid changes its viscosity depending on the amount of stress of force applied i.e. freezing weather



3. Safety Procedure

- 3.1** Heathrow is committed to minimising the impact of its business on the environment and local communities, through the continuous improvement of environmental performance and by acting responsibly.
- 3.2** The chemicals used for all aircraft and most airfield de/anti-icing practices are predominately glycol based and after application shear off the applied surfaces into the airport surface water drainage system. They are fully biodegradable but as they degrade they remove oxygen from the water which can damage the aquatic ecosystem.
- 3.3** Airport companies must be aware that it is now a criminal offence to 'cause or knowingly permit' pollution of rivers. Current legislation is contained within the following documentation:

The Water Industry Act
The Water Resources Act
The Environment Protection Act

- 3.4** References to legislation contained within this OSI are not intended to be a definitive list. Airport companies must make themselves aware of all existing legislation.
- 3.5** De-icing service providers operating at Heathrow are required to have signed the De-icing Code of Practise and should also be aware of the following documents issued by Heathrow (and any subsequent amendments) relating to de/anti-icing fluid use.

OSI Airside Environment - Incident Reporting Procedures
OSI Airside Environment - Pollution Prevention

- 3.6** Copies of the above and all other OSI's are available from the Airside website: <http://www.heathrow.com/airside>

4. Reporting Procedures – General

- 4.1** All use of de/anti-icer must be reported to Heathrow as indicated below:
- 4.2** All de-icing service providers undertaking de-icing operations must make known their intentions to the AEM in writing, on the 'Operation Specification Sheet' (see Appendix A), prior to commencement of operations at Heathrow.



This requires companies to supply the following details:

- a) De-icer type to be used
- b) Product Specification Sheet
- c) Material Safety Data Sheet (MSDS)
- d) Control of Substances Hazardous to Health (COSHH) Risk Assessment
- e) Where appropriate, the third parties in receipt of the de/anti-icing service

- 4.3** Any changes to the operation must be notified to the AEM 07900 307 697 or the AEA 07702 998 575.
- 4.4** Confirmation of the above details will be requested from operating companies by the AEA on an annual basis (September of each year).

4.5 Overview of Catchment Area

- 4.5.1** The airport is divided into four surface water drainage catchments;

Eastern catchment covers - Terminal 2 and No.1 Maintenance Area.

Southern catchment covers - Terminal 3, Terminal 4 and Cargo Area.

Northern and Western Catchment – Terminal 5

4.6 Aircraft De/Anti-icing

- 4.6.1** Any de/anti-icing operation undertaken must be reported on the Aircraft De-Icing Report Form - see Appendix B
- 4.6.2** The completed form must be e-mailed on a daily basis to the AEA at airside_environment@heathrow.com

4.7 Airfield De/Anti-Icing and Fluid Recovery

- 4.7.1** Any de/anti-icing fluid recovery operations undertaken must be reported daily on the Airfield Duty Manager Daily Report. The report should be forwarded to the AEM and the AEA.

Note: When using any products Heathrow require the volume in either Litres for liquids or Kilograms for solids.

4.8 Responsibility

- 4.8.1** De-icing service providers are reminded that it is their sole responsibility to ensure familiarity with the safe and proper use of any hazardous materials and processes for de/anti-icing. They must also take necessary precautionary measures to ensure the health & safety of all personnel involved in this process.



- 4.8.2** De-icing service providers must have procedures in place to deal with ALL spillages which may occur as a result of their operation at Heathrow. These procedures should include guidelines for the isolation and control of fluids.
- 4.8.3** It is prohibited to dispose of waste de-icing fluid into the surface or foul water drainage systems; this applies to both neat and diluted product.
- 4.8.4** De-icing service providers are responsible for the provision of correct storage facilities inclusive of adequate containment/bunding capable of holding 110% of the total capacity of the storage vessel or self bunded tanks.
All installations must have approval from the Heathrow Airside Ramp Assurance Team and the AEM.
Storage facilities will be inspected by Heathrow every two years and when new facilities are constructed.
- 4.8.5** A specialist hazardous waste contractor should be engaged to dispose of waste fluids. For further information, contact the AEM.
- 4.8.6** De-icing service providers must have procedures in place to reflect their different operating methods and procedures for de/anti-icing.
- 4.8.7** De-icing service providers are also responsible for providing training in their operating procedure, which should also include an emphasis on the correct storage and disposal.

4.9 Compliance

- 4.9.1** If it is found that the instructions within this OSI are not being complied with, a written explanation will be required in the first instance, stating what measures have been put in place to prevent a re-occurrence.
- 4.9.2** Heathrow will take all appropriate action against any non-compliance with this OSI, as defined in section 16 of the Ground Operating License.

4.10 Guidance

- 4.10.1** All practical steps should be taken to avoid and minimise the risk of pollution by means of training, awareness of legislation, good maintenance of equipment and good working practices. Guidance is available from Heathrow's AEM.

4.11 Enquiries

- 4.11.1** Any questions regarding the contents of this instruction or the subject matter in general should be referred to the Heathrow AEM on 07900 307 697 or the AEA on 07702 998 575.



5. Forms / Records

Form #	Record / Form / Activity Name	Responsibility
1	Operation Specification Sheet	All de/anti-icing service providers
2	Aircraft De-icing Report Form	All de/anti-icing service providers

6. References

The Water Industry Act
The Water Resources Act
The Environment Protection Act
ASEnv_OSI_059_Incident Reporting Procedures
ASEnv_OSI_056_Pollution Prevention
Ground Operations License – Section 16



Appendix A – Operation Specification Sheet

Company Name:	
Contact Name(s):	
Position(s):	
Address:	
Office telephone:	
Mobile number(s):	
E-mail (s):	

I _____ (Contact Name), do hereby make known the intention that from _____ (Date) _____ (Company Name) will commence de/anti-icing practice/s.

Types of de/anti-icing:

Third Parties in receipt of de-anti-icing service:

De-Icing Company:	Date:

I also enclose the following:

Product specification sheet:



Material safety data sheet (MSDS)



COSSH risk assessment



De-icing code of practice



Signed _____

Date _____

Please return to: Airside Environment Manager, Airside Operations, Building 16887, Heathrow Airport, Hounslow, Middlesex, TW6 2GW.



