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Lancaster University

21st ANNUAL CONFERENCE
28-30 MARCH 2017
GLOBAL GOALS:
LOCAL ACTION

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Back to Basics!
Are you legally complaint?
And are you ready for ISO 14001:2015?

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Introductions

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Session Agenda

1. Background to Lancaster University's EMS
2. Journey to Legal Compliance
3. Lessons Learnt

4. ISO 14001:2015 Overview
5. Case-study from Bournemouth

6. Workshops, Questions and Answers

Background to LU EMS

Lancaster University started implementing an environmental management system (or 'EMS') in March 2014 and was certified in December 2014

The EMS covers the activities and operations of Facilities Division and was designed to meet the requirements of ISO 14001:2004. We aim to transition to ISO 14001:2015 in October 2017

Bournemouth University was accredited to ISO 14001:2004 in December 2015 and is transitioning to ISO 14001:2015 at present.

Achieving Legal Compliance

Achieving legal compliance is the minimum standard of a certified EMS and was one of the biggest challenges in the process

We subscribed to a third party service which provides:

- Access to legal database
- Monthly compliance updates
- Annual high-level evaluation of compliance

However a detailed compliance Audit had not been undertaken

Achieving Legal Compliance

We focused on developing procedures to cover the key areas of legal compliance:

- Refrigeration (FGAS) Systems
- Waste Management
- Drainage Systems
- Hazardous Material Storage
- Energy Management

F-Gas Systems

Background

- Fluorinated gases are very powerful greenhouse gases (most are between 1000 and 20000 more powerful than CO_2)
- Ozone Depleting Substances (e.g. R22) cause damage to the earth's stratospheric ozone layer and are being phased out
- In the EU the use of F-gas and ODS are covered by EC Regulations which require regular leak tests

Legal Requirements

- Inventory
- Labelling
- Checking for damage/leaks
- Testing units >3kg ODP or 5tCO2e

Waste Management

Background

- Facilities for recycling range of materials
- Generate 2,200t, Target 90% recycling

Legal Requirements:

- Do not mix hazardous with non-hazardous
- Do not keep waste for > 12 months without a permit
- Develop a duty of care matrix listing all waste types, carriers and final disposal points
- Undertake duty of care audits on waste contractors
- Ensure transfer notes / consignment notes are kept for 2/3 years respectively
- Collect quarterly returns for hazardous waste

Waste Management

Legal Requirements:

- Ensure the correct exemptions are in place if you are storing, treating or reusing waste
- Ensure waste storage is secure to avoid fly tipping and looting
- At Lancaster this involved development of a new secure waste compound and diversion of surface water drains in the area
- Recently a post-box has been installed to allow contractors to post through waste documentation

Wastewater Discharges

Background

- Surface water drains are only for rainwater as they flow direct to nearby rivers and streams. (other discharges illegal).

Requirements

- Ensure there is a drain plan showing the difference between surface water and foul drains
- Protect surface water and ensure tenants / contractors are not disposing anything other than rain water to our drains
- Check and maintain interceptors regularly

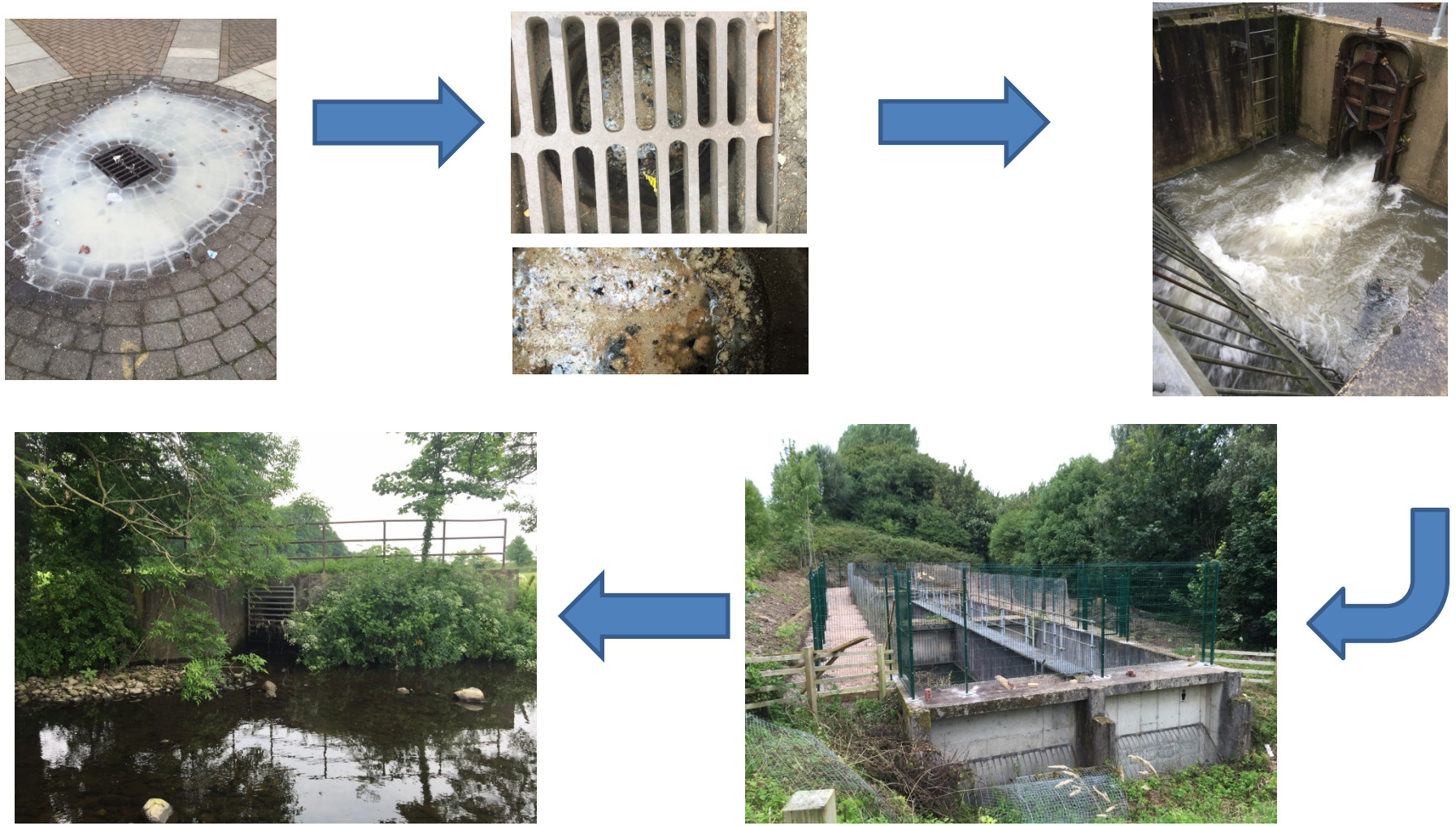
Wastewater Discharges

Legal Requirements:

- Achieving compliance at Lancaster involved a major project to clean-out the main interceptor and improve security/ access
- There are now regular PPMs in place to check the outfall

NB Universities are exempt from the need to hold a consent to discharge to foul drains as a ‘public service activity', although this doesn’t cover tenants / contractors on-site

Waste water discharges – Drainage Systems



Fluid Material Storage

Requirements:

- Ensure oils and chemicals are stored internally or externally on a bund, including storage by tenants and contractors
- COSHH substances must be in locked containers / cupboards
- Containers must be in good condition, protected from damage and kept locked
- Underground Storage Tanks must be integrity tested regularly depending on risk / age
- All deliveries must be supervised
- Spill kits must be available and maintained

Energy Management

Legal Requirements:

- **CRC** – Applicable for larger HE/FE establishments, requires production of detailed evidence pack annually
- **Energy Performance Certificates** – required for all self-contained units that are leased and valid for 10 years
- **Display Energy Certificates –** required for all public spaces and certificate valid for only 1 year. Availability of metering data is a challenge
- **Heat Network (Metering and Billing) Regulations**
- **ESOS –** next compliance round is December 2019, will publicly funded Universities still be exempt?

Future Compliance Dates

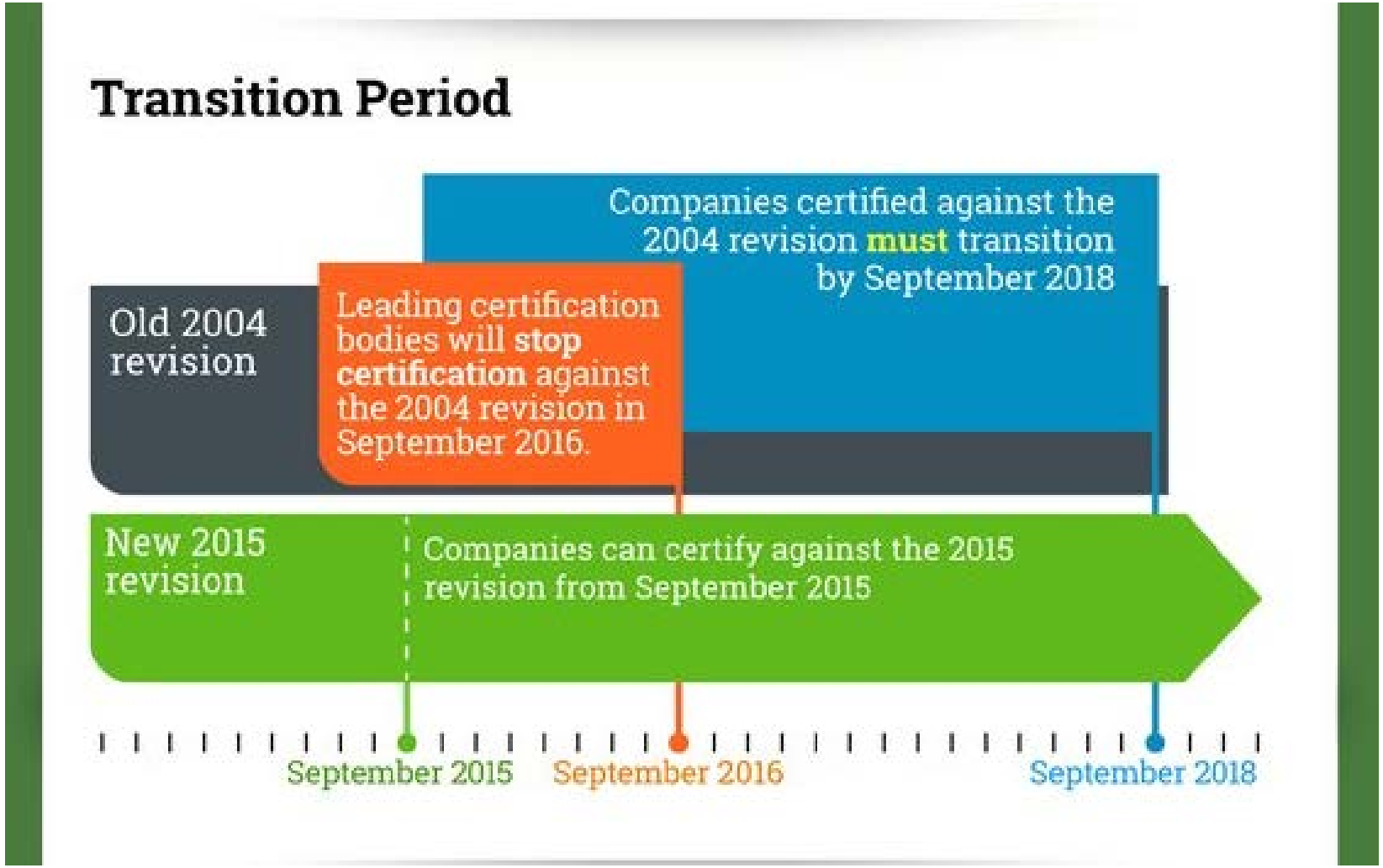
- 1 January 2017 - Leak testing of systems with less than 3 kg of refrigerant, where the CO_2e rating of the gas exceeds the threshold (i.e. 5 tonnes).
- 1st April 2018 - Private rented property must meet an energy performance level of at least grade E before a new tenancy can be granted
- 20 December 2018 - Emission limits will start to apply to new installations from under the Medium Combustion Plant Directive, although the legislation will not apply in full until 2030.
- 1 January 2020 - There will be a ban on the use of refrigerants with a GWP of 2500 or more in new stationary refrigeration equipment and for service and maintenance of refrigeration equipment where the charge size is greater than 40 Tonnes CO_2 equivalent (approximately 10kg of R404A).

Transition to ISO 14001:2015

Session Aims

- Review main elements of the new standard
- Review and explore Scope clause
- Review and explore Leadership clause

Transition to ISO14001:2015



ISO14001:2015 PDCA

Overall aims of ISO14001:2015

- More effective environmental management
- Better outcomes/results in environmental performance
- Integrated into business processes
- Continual improvement – suitability, adequacy and effectiveness of the EMS to enhance environmental performance

Annex SL

1. Scope
2. Terms
3. Normative references
4. Context of the organisation
5. Leadership
6. Planning
7. Support
8. Operation
9. Performance evaluation
10. Improvement

Key concepts for ISO14001:2015

- Context of organisation
- Leadership
- Strategic environmental management
- Risks and opportunities
- Life-cycle perspective
- Value chain control/influence
- Performance evaluation
- Auditing

Context of the organisation - EMS Scope (clause 4.3)

Organisation determines boundaries and applicability of EMS

In setting the Scope consider:

- internal and external issues (clause 4.1)
- compliance obligations associated with interested parties (clause 4.2)
- institutional departments/functions and physical boundaries
- activities, products and services;
- Authority and ability to exercise control and influence

Once defined all activities, products, and services must be included in the EMS, be documented and available to interested parties.

EMS Scope

BU	Lancaster
Provision of Higher Education and related support services at Bournemouth University Talbot, Lansdowne and Yeovil campuses and University run halls of residence. Not included in the Scope are satellite campuses, Uni-lets and privately run halls.	All Facilities activities & operations Service Delivery & Maintenance Landscape & Grounds Catering, Events,Retail & Bars Tenants Projects & Contractors Sports Centre, Pre-School Centre Travel Customer Services Porters & Security Cross functional cross campus issues such as energy operations , waste management, drainage etc Faculties and non Facilities professional services excluded

Leadership

Top management

“Person or group of people who directs and controls an organisation at the highest level”

Responsibilities include:

- taking accountability for the effectiveness of the EMS;
- ensuring that the policy and objectives are compatible with the institution's strategic direction;
- ensuring the integration of the EMS into business processes;
- ensuring resources needed are available;
- communicating the importance of effective environmental management
- ensuring EMS achieves intended outcomes;
- directing and supporting persons to contribute to the effectiveness of the EMS;
- promoting continual improvement;
- supporting other relevant management roles to demonstrate their leadership

Workshop Sessions

Workshop A: Compliance

- What are the key legal compliance issues for your organisation?
- Where do you need to undertake more investigate to fully understand your compliance status?

Workshop B: ISO 14001:2015 – Scope, risks and opportunities

- Discuss how you have defined your EMS Scope;
- what are the risks and opportunities in including ESD and research in the EMS scope?

Workshop C: ISO 14001:2015 - Leadership

- What does top management looks like at your institution;
- what evidence could you collect to demonstrate compliance with the ISO standard clause?