

Environmental Management System - Internal Audit Report

Arts University Bournemouth 05/09/2019

Scope of Audit: Audit Date: **Auditors: Alex Hobbins**

EcoCampus Requirements	Clause Audited		
Bronze Phase -Planning			
I.I Leadership & Commitment	⊠		
I.2 Context of the Institution	×		
Silver Phase - Implementing			
2.1 Compliance Obligations	\boxtimes		
2.2 Environmental Aspects	\boxtimes		
2.3 Planning Action			
2.4 Environmental Objectives			
2.5 Environmental Policy	\boxtimes		
Gold Phase - Operating			
3.1 Institutional Roles, Responsibilities & Authorities	\boxtimes		
3.2 Competence & Awareness	\boxtimes		
3.3 Communication	\boxtimes		
3.4 Documented Information	\boxtimes		
3.5 Operational Planning & Control	\boxtimes		
3.6 Emergency Preparedness & Response	\boxtimes		
Platinum Phase — Checking & Correcting			
4.1 Monitoring, Measuring, Analysis & Evaluation	\boxtimes		
4.2 Evaluation of Compliance	\boxtimes		
4.3 Non-Conformity & Corrective Action	\boxtimes		
4.4 Internal Audit	\boxtimes		
4.5 Management Review	\boxtimes		

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Internal Audit Report Form - Executive Summary

Audit Outcome:

Major N/Cs: Minor N/Cs: 3 Opportunities for 6 improvement:

Comments of the assessment team:

Signature:

An internal audit of the Arts University Bournemouth's (AUB) environmental management system (EMS) was conducted to determine the extent to which it conforms with the requirements of ISO14001:2015. The EMS is led by Campus Services who work closely with other departments and the Environment Committee.

The system provides an effective level of control of environmental risk at AUB. The organisation's context is well defined, leadership has been effectively demonstrated and commitment levels are evident. This is reflected in the Sustainability Plan and through operational control of risk areas.

The audit involved a review of all system processes and documentation and a tour of the photography department. Evidence is clearly available to demonstrate that the key requirements of the standard are being achieved including identification of environmental risks and opportunities associated with environmental aspects, fulfilment of compliance obligations; setting of objectives to achieve continual improvement and enhance performance; operational control of risks to protect the environment and prevent pollution.

Title: EcoCampus Project Manager	Date:	

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Internal Audit Report Form – Audit Findings Summary

Ref No	Clause No	Details of non-conformances or OFIs raised	Туре
OFI I	2.1	The EMS index should be updated to state that the Compliance Obligations Register is updated at least annually.	OFI
OFI 2	2.1	The compliance obligations register should be updated to include: - The 2016 Environmental Permitting Regulations rather than the 2012 regulations; - Mandatory sector requirements such as the HESA EMR returns, as listed within the Log of Interested Parties.	OFI
OFI 3	2.2	The process for assessing significance should be documented within the EMS Index.	OFI
Min NC I	2.2	After reviewing the aspects register it was noted that some of the aspects have not been highlighted as having a compliance risk where they should.	Minor N/C
OFI 4	2.3	The SCSO should ensure that the actions identified within the aspects register to address risks and opportunities are up to date.	OFI
OFI 5	3.2	The SCSO should ensure that a date for spill training with technicians is set prior to the ISO14001 certification audit.	OFI
MIN NC 2	4.3	Although the university has addressed non-conformities raised throughout EcoCampus audits, there is no register of nonconformities and associated corrective actions.	Minor N/C
OFI 6	4.3	The non-conformities and OFI's raised during internal and external audits should be added to the register of non-conformities including details of corrective actions having been implemented and checked for effectiveness.	OFI
MIN NC 3	4.4	The university has not developed an audit program as required by the clause 4.4 or ISO14001:2015 clause 9.2.2.	Minor N/C

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Closure of Findings from EcoCampus Gold Audit AUB – 03 on the 10/04/2019:

Clause	Details of Non-Conformances (NCs) or Opportunities	Status
No	for Improvement (OFIs) raised.	
OFI I	The roles and responsibilities register does not list the roles and	Closed
	responsibilities for key operational staff such as cleaners, technicians and	
	security. The register should be updated to reflect the operational staff.	
Evidence	The roles and responsibilities register has been updated and includes:	
	- Churchills (cleaning contractors) – Responsible for emptying bins plus cleaning up non-haz spills.	
	- Technical operations managers – responsible for ensuring	
	technicians are able to deal with haz chemicals, spills and	
	encouraging sustainability.	
	- Technician demonstrators – deal with haz chemicals, spills and encouraging sustainability.	
	- Security team – ensuring waste compounds are locked and aware	
	of spill procedure.	
OFI 2	The SCSO should review the content of the Environmental Awareness	Closed
0112	training module on Praxis to determine whether it is up to date and	Ciosca
	relevant to the current practice at the university.	
Evidence	The SCSO has been unable to access the Environmental Awareness	
Lvidence	module of the Praxis course, however, environmental awareness is	
	completed through the university environmental induction	
	conducted by the SCSO.	
OFI 3	The SCSO should determine whether Churchill's staff have been training	Closed
	on dealing with external spills of hazardous substances.	
Evidence	Training records viewed for Churchills staff include:	
	- COSHH toolbox talks covering the basics of COSHH, risk	
	assessment processes, storage and labelling of chemicals.	
	- Environmental awareness toolbox talk covering general issues	
	such as energy, water, waste, spillages, control measures and	
	procuring efficient products. Also explains what staff should do to	
	manage waste, water, chemicals, spillages, energy, CO2 (travel) etc.	
OFI 4	The university should consider how to communicate about its	Closed
	environmental performance and achievements to staff and students.	
Evidence	The university sustainability web pages have recently been updated	
	and include a comprehensive range of information, including	
	information about its environmental performance.	
OFI 5	The Environment Committee acts as the management review for the	Closed
	EMS however, the meetings do not fully satisfy the requirements of	
	Platinum clause 4.5. The university should consider adding agenda items	
	to the Management review committee meeting. The EcoCampus	
	Management Review Agenda template is recommended.	
Evidence	Minutes from the environment committee meeting on the 31st May	
	2019 confirm that the meeting to be held in October 2019 will	
	include agenda items required by the clause.	

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OFL	The mineral defended defended to the second d	Class
OFI 6	The university should determine how environmental requirements,	Closed
	stipulated in contracts are monitored and managed once contracts have	
	been awarded.	
Evidence	The SCSO explained how contractor requirements are managed	
	through:	
	- quarterly waste contractor meetings – SCAG	
	- meetings with the bus company at Bournemouth University	
	- Catering operational meeting – raised actions on coffee cup	
	recycling & surcharge for cups.	
	- Contractor meetings with Churchills and the HOCS.	
	- Construction contractor meetings – environmental specifications	
	managed through BREEAM achievements.	
OFI 7	The SCSO should consider developing an operational control	Closed
0117	procedure(s) to summarise how key environmental risk areas are	Ciosca
	controlled. Areas include waste/hazardous waste, energy, control of	
	hazardous substances, and air-conditioning/refrigeration maintenance.	
	The document should explain:	
	·	
	- who is responsible for each area;	
	- physical control measures such as bins, cabinets or bunds;	
	- how compliance is achieved with reference to applicable records such	
	as waste transfer notes or air-conditioning maintenance records;	
	- how data is managed and used to monitor environmental performance.	
Evidence	Written operational control have been developed for areas of	
	environmental risk including waste, energy water, emissions,	
	construction and contractor control.	
OFI 8	The 'Guide for chemical spill response planning' should be updated to	Closed
	explain how contaminated spill kit and hazardous materials should be	
	disposed of as hazardous waste.	
Evidence	The Guide for Spill response planning has been updated recently	
	and covers the steps taken to address spillages including bagging up,	
	labelling and disposing of contaminated materials as hazardous	
	waste.	
OFI 9	The SCSO should conduct and document an environmental risk	Closed
	assessment of the areas and routes where hazardous substances are	-
	stored and transported and identify where hazardous substances would	
	end up if a spill occurs.	
Evidence	The SCSO recently conducted risk assessments for spillages from	
FAIGELICE	transportation of chemicals from the campus and workshops to the	
	waste compound. The assessment indicated that there is a very low	
	risk of spillage due to the limited chemical use, short distance to	
OFL 12	travel and use of suitable containers on site.	
OFI 10	A spill kit is located within the hazardous waste compound. In the event	Open
	of a spillage the campus services team will be notified, however staff	
	including cleaners and technicians have no had formal spill response	
	training.	
Evidence	Spill training was scheduled with technicians for the week of the	
	26 th Aug however this was postponed as the SCSO and technicians	
	agreed that transportable spill kits would be purchased for	
	individual areas, and training would commence once these were	

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	obtained. Spill kits are to be provided for the post room, photography department, workshops and haz waste store. An email, sent by the SCSO to the technicians on the 3 rd Sept 2019, confirmed the purchase of the spill kits and plan to re-schedule spill training.	
OFI I I	To satisfy the requirements of ISO I 400 I, emergency response procedures should be tested periodically. The university should consider conducting a mock spill as part of spill response training.	Open
Evidence	The testing of emergency procedures is to be conducted as part of the spill training discussed in section 3.2.	

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Internal Audit Report Form – Audit Trace Record Form

Clause No	Audit Findings and Comments	Туре
1.1	Leadership and commitment	
	Document(s) audited:	
	Governance for Environmental Sustainability	
	Minutes from Environmental Committee meeting 31/05/2019	
	Comments:	
	The document 'Governance for Environmental Sustainability'	
	describes the university's management structure and a separate	
	reporting structure for the EMS. Discussions held with the Senior	
	Campus Services Officer (SCSO) confirm that the Environment	
	Committee consists of 3x members of senior management, academics,	
	faculty managers, and representatives from procurement, IT and the	
	SU. Senior management representatives are the University Secretary,	
	the Head of Campus Services (HOCS) and the Head of Digital	
	Services, who all sit on the university leadership team (ULT). The Environment Committee meets three times a year. Minutes from the	
	Environment Committee from the 31 st May 2019 confirms topics	
	discussed including the EcoCampus Gold award, an update of the	
	sustainability plan and actions to improve environmental	
	communications.	
	Senior Management Commitment was further assessed by interview	
	of the Head of Campus Services during the Silver and Gold phase	
	EcoCampus audits.	
	Evidence viewed confirms senior management commitment for the	
	EMS.	
1.2	Context of the institution	
	Document(s) audited:	
	Governance for Environmental Sustainability	
	PESTLE analysis	
	Log of interested parties	
	EMS Index	
	Comments:	

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Environmental risks and opportunities have been determined through a PESTLE analysis. The SCSO completed the analysis in 2018 which was presented to the Environmental Committee for review. Minutes from the committee meeting on the 15.02.18 confirm that the committee noted the PESTLE analysis which sets outs risks and opportunities against a range of factors. The analysis includes an action plan which indicates how the university intends to address the risks and opportunities where possible.

The log of interested parties lists interested parties such as students, staff, funding bodies, contractors (Churchill (cleaners), Mitie (Security), Suez (Waste contractor), Chartwell (catering)), regulators and NGO's. Parties have been assessed within a risk matrix which considers the 'level of interest' and 'influence from the university' and stipulates how they should be managed under 4x categories: 'Keep Satisfied', 'Manage Closely' 'Monitor', 'Keep Informed'.

The scope of EMS is documented with the EMS Index and the document 'Governance for Environmental Sustainability'. The scope covers:

"All AUB buildings used for educational and residential purposes. This will be inclusive of buildings owned and leased, directly managed by third party on the AUB's behalf. The scope does not include residential buildings that are owned and managed by a third party."

Evidence viewed confirms that the university has determined the risk and opportunities associated with its context, identified interested parties and set the EMS scope.

2.1 Compliance Obligations

Document(s) audited:

Compliance Obligations Register

Comments:

The Compliance Obligations register was last updated in October 2018. The register uses the EcoCampus template to list legal requirements by category such as emissions, energy, waste and water. The process for keeping up to date with legal requirements is documented within the EMS Index. It was noted that the frequency in which the compliance obligations register is to be updated is not documented within the index. The register describes the legislative requirements and includes further information relating to responsibilities and licences.

The EMS index should be updated to state that the Compliance Obligations Register is updated at least annually.

OFI I

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	It was noted that the legal register referred to legislation that has been updated and did not include other requirements such as mandatory sector reporting of environmental data. The compliance obligations register should be updated to include: - The 2016 Environmental Permitting Regulations rather than the 2012 regulations; - Mandatory sector requirements such as the HESA EMR returns, as listed within the Log of Interested Parties.	OFI 2
2.2	Environmental Aspects Document(s) audited: Environmental Aspects Register EMS Index	
	Comments: The environmental aspects register was last updated by the SCSO in October 2018. The register uses the EcoCampus template to identify aspect areas, aspects and their associated impacts. Aspects are assessed for significance by allocating scores against 'severity of impact' and 'frequency/likelihood of occurrence' to give a 'significance' score. In addition, aspects that have an associated compliance risk are automatically highlighted. The EMS Index explains how aspects are identified however does not stipulate the methodology for assessing their significance. The process for assessing significance should be documented within the EMS Index.	OFI 3
	Aspects were reviewed for consistency with the methodology. After reviewing the aspects register it was noted that some of the aspects have not been highlighted as having a compliance risk where they should. The aspects that should be reviewed to show the associated compliance risk are: - A14 Use of refrigerants - A10 Use and storage of chemicals - A22 noise and vibration - A23 to 27 waste management.	Minor NC I
	The register includes a 'life cycle analysis' which describes the actions to address the life cycle stages, where applicable, to each aspect. In addition, it was noted that the aspects identified relate to the life cycle stages of the university's activities including design of buildings, procurement of goods, transport, use of facilities & resources and the treatment/disposal of waste.	

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	Risks and opportunities associated with aspects have been identified. Risks include breaches of legislation, increased costs, pollution and loss of biodiversity. Opportunities include improved efficiency, use of renewables/new technology and greater reuse/recycling.	
2.3	Planning Action	
	Document(s) audited: EMS Index Comments: A list of actions has been developed to show how the university intends to address risks and opportunities associated with its environmental aspects. The SCSO indicated that the actions have not been updated since October 2018 and some of them have since been completed. The SCSO should ensure that the actions identified within the aspects register to address risks and opportunities are up	OFI 4
2.4	to date.	
2.4	Environmental Objectives	
	<u>Document(s) audited:</u> Environmental Objectives, KPI's and action planner Sustainability Plan 2015-20	
	Comments: Environmental objectives are listed within the 'Environmental Objectives, KPI's and Action Planner. The objectives relating to emissions and waste originate from the Sustainability Plan 2015-20. Actions to address these targets are documented within the Carbon Management Plan. Discussion were held with the SCSO about progress towards objectives and targets relating to carbon, waste, water, transport and biodiversity.	
	Carbon emissions The university has set an objective to reduce carbon emissions by 40% per head by 2020 against 2005/06 baseline to 0.336 TCO2 per head. The SCSO provided data showing a 28% reduction in total emissions. A 'Sustainability Plan Progress report' presented to the environment committee shows that emission per head in 2017/18 were 0.227 per head, therefore the university is on track to achieve its target. Completed projects discussed include: - Lighting upgrade to LED - BMS upgrade	
	- Pipework insulated. The university is also looking to replace boilers in the North building plant room.	

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Waste

The university has set a target to achieve a 40% recycling by 2020. The university is performing well above this rate with a current 59% recycling rate. A waste audit bin assessment was conducted to assess the composition of waste disposed of in 8x bins for general waste and recycling. The analysis shows that within general waste bins 14.3% was card and 15.6% were plastics both of which could be recycled.

Water

The objectives for water come under the emissions reduction objectives. It was noted that the university is in talks with Bournemouth water to install submetering with monitoring software.

Transport

The objectives associated with transport are captured by the carbon objectives. It was noted that the university has started to offset its emissions associated with transport.

Biodiversity

The university has a Biodiversity Action Plan, however this is used as a guide rather than operational plan with actions. The plan was completed in December 2016 and included a habitat survey with action plan. Some of the actions have been acted upon including installation of green roof. The SCSO intends to develop further actions as part of the Sustainability Plan review.

Sustainability plan 2015-20

The current Sustainability Plan expires at the end of 2020 and the SCSO explained that the Environmental Committee ran a separate meeting to discuss how the new targets for the revised plan would be developed. Four people have been identified to set the new targets and meetings are to be held to progress this further.

Objectives and targets have been set for key environmental risk areas and evidence was provided to show how these are being addressed.

2.5 Environmental Policy

Document(s) audited:
AUB Environment Policy

Comments:

The university's Environmental Policy was reviewed and updated in January 2019 and signed by the Principal and Vice-Chancellor. The Policy meets the requirements of the ISO14001 standard in that it includes commitments to:

- the protection of the environment, including prevention of pollution

- fulfil its compliance obligations

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- continual improvement of the environmental management system to enhance environmental performance.	
The policy is communicated through the university's website.	
Institutional Roles, Responsibilities and Authorities	
Document(s) audited: 3.1.1 Institutional Roles, Responsibilities and Authorities Roles, Responsibilities & Training Register	
Comments: Procedure 3.1.1 Roles, Responsibilities & Authorities states that the SCSO and HOCS are responsible for determining responsibilities of staff relevant to the EMS. SCSO and HOCS responsibilities also include:	
 responsibility and authority for establishing, implementing and maintaining the EMS in accordance with the requirements of 	
 responsibility for annually reporting on the performance of the EMS to the Environment Committee, as well as making recommendations for improvement. 	
The 'Roles and responsibilities register' was assessed during the EcoCampus Gold audit. Roles of staff relevant to environmental management including senior management, management, academic and operational staff. The OFI below was raised during the Gold audit: "The roles and responsibilities register does not list the roles and responsibilities for key operational staff such as cleaners, technicians and security. The register should be updated to reflect the operational staff."	
The roles and responsibilities register has been updated to include: - Churchills (cleaning contractors) – Responsible for emptying bins plus cleaning up non-haz spills Technical operations managers – responsible for ensuring technicians are able to deal with haz chemicals, spills and encouraging	
- Technician demonstrators — deal with haz chemicals, spills and encouraging sustainability.	
- Security team — ensuring waste compounds are locked and aware of spill procedure.	
Competence and Awareness	
Document(s) audited: 3.2 Competence and awareness Roles, Responsibilities & Training Register	
Comments:	
	enhance environmental performance. The policy is communicated through the university's website. Institutional Roles, Responsibilities and Authorities Document(s) audited: 3.1.1 Institutional Roles, Responsibilities and Authorities Roles, Responsibilities & Training Register Comments: Procedure 3.1.1 Roles, Responsibilities & Authorities states that the SCSO and HOCS are responsibile for determining responsibilities of staff relevant to the EMS. SCSO and HOCS responsibilities also include: - responsibility and authority for establishing, implementing and maintaining the EMS in accordance with the requirements of the Scheme. - responsibility for annually reporting on the performance of the EMS to the Environment Committee, as well as making recommendations for improvement. The 'Roles and responsibilities register' was assessed during the EcoCampus Gold audit. Roles of staff relevant to environmental management including senior management, management, academic and operational staff. The OFI below was raised during the Gold audit: "The roles and responsibilities register does not list the roles and responsibilities register does not list the roles and responsibilities register does not list the roles and responsibilities register has been updated to include: - Churchills (cleaning contractors) – Responsible for emptying bins plus cleaning up non-haz spills. Technical operations managers – responsible for ensuring technicians are able to deal with haz chemicals, spills and encouraging sustainability. - Technician demonstrators – deal with haz chemicals, spills and encouraging sustainability. - Security team – ensuring waste compounds are locked and aware of spill procedure. Competence and Awareness Document(s) audited: 3.2 Competence and awareness Roles, Responsibilities & Training Register

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Procedure '3.2.1 Competence and Awareness' explains the process for communicating responsibilities of roles to relevant individuals within the EMS. Training requirements are identified and documented within the Roles, Responsibilities and Training Register.

Completed training was assessed during the EcoCampus Gold audit. Evidence of training included the environmental induction and COSHH training for technicians and an online environmental awareness module hosted on the university's H&S training software called Praxis. The SCSO was unable to access the Environmental Awareness module of the Praxis course, however, environmental awareness is completed through the university environmental

Spill training was scheduled with technicians for the week of the 26th Aug however this was postponed as the SCSO and technicians agreed that transportable spill kits would be purchased for individual areas, and training would commence once these were obtained. Spill kits are to be provided for the post room, photography department, workshops and haz waste store. An email, sent by the SCSO to the technicians on the 3rd Sept 2019, confirmed the purchase of the spill kits and plan to re-schedule spill training.

The SCSO should ensure that a date for spill training with technicians is set prior to the ISO 14001 certification audit.

OFI 5

The contractor Churchills provide staff and cleaning services to the university. Training records for Churchills staff include:

- COSHH toolbox talks covering the basics of COSHH, risk assessment processes, storage and labelling of chemicals.
- Environmental awareness toolbox talk covering general issues such as energy, water, waste, spillages, control measures and procuring efficient products. Also explains what staff should do to manage waste, water, chemicals, spillages, energy, CO2 (travel) etc.

3.3 Communication

induction.

Document(s) audited:

3.3.1 Internal and External Communications

AUB website

Contractor induction process

Email evidence

Comments:

Procedure '3.3.1 Internal and External Communications' describe the communications channels, website and process for dealing with enquiries and complaints. The university sustainability web pages have recently been updated and include a comprehensive range of information, including information about its environmental performance, under the following headings:

- Environmental sustainability,
- Sustainable resource management

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- Student engagement
- Energy, carbon and water
- Travel
- Governance, policies and plans
- Fairtrade & food
- Being sustainable on a student budget
- A green interview with James Jackson: Senior Campus Services Officer

The main page of the website also includes the key environmental policy commitments. The site will be used to promote sustainability related stories through the 'Green News' section, some of which have been uploaded including celebrating the EcoCampus Gold award and planting 1000 trees at Upton Park. It was noted that the AUB student union have uploaded a document called 'Greenzine', which covers a range of issues such as plastics, meat, palm oil and shopping sustainably. The SCSO discussed the provision of a TV screen at the entrance of the Arts Bar, which will be used to display information on environmental performance including recycling rates.

The SCSO maintains a folder for environmental related communications. This included recent emails to technicians confirming the new spill procedure and completed risk assessment for spills. The SCSO explained how contractor requirements are managed through:

- quarterly waste contractor meetings SCAG
- meetings with the bus company at Bournemouth University
- Catering operational meeting raised actions on coffee cup recycling & surcharge for cups.
- Contractor meetings with Churchills and the HOCS.
- Construction contractor meetings environmental specifications managed through BREEAM achievements.

Further evidence of communications was assessed in detail during the EcoCampus Gold audit.

3.4 Documented Information

Document(s) audited:

3.4.1 Documented information EMS folder structure

Comments:

Procedure '3.4.1 Documented Information' states that the SCSO is responsible for maintaining the EMS document system. The EMS documents are stored on the EcoCampus EMS Documentation System. Procedures include details of the author, approver, review date and a separate table for version control. All procedures viewed included version control, the author and approver.

3.5 Operational Planning and Control

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Document(s) audited:

- 3.5.1 Operational Control
- 3.5.2 Waste management
- 3.5.3 Hazardous waste management
- 3.5.4 Discharges to water
- 3.5.5 Emissions to air
- 3.5.6 Energy management
- 3.5.7 Construction
- 3.5.9 Contractor control

Health & Safety Contractor Induction

Comments:

Discussion held with the SCSO about operational controls for areas of environmental risk including waste, energy, hazardous substances and emissions to air. It was noted that written operational controls have been developed for waste, energy water, emissions, construction and contractor control.

A tour of the photography department was conducted with a technician who explained the processes for managing hazardous substances from purchase to disposal. The process is as follows:

- Chemicals purchased are delivered directly to the chemical storeroom. The store has an inventory on the door which shows the hazardous properties. Only technicians have access to the store. Ilford RT rapid film developer Part A was stored in labelled bottles on shelving. The store provides separate areas for different chemical types including flammables and oxidising materials.
- Material safety data sheets (MSDSs) are obtained for all chemicals purchased which are used to develop risk assessments (RA). Copies of MSDS and RA viewed for Ilford RT rapid film developer Part A. It was noted that all RA's are currently under review prior to the start of the new term.
- Chemicals are transported to required areas, for use within the photography machinery and the dark room.
- Mixing instructions describe the process for mixing. Chemicals are mixed in the mixing room within a measuring tank with exhaust fume head. Once mixed chemicals are automatically fed into containers, reducing the risk of spillages. PPE is available. The mixing room also houses a sink.
- The department has 4x film processors. A Colenta C41 film processor was viewed in which Ilford RT rapid film developer is used. At the end of the process the developer is diluted and washed directly to drain. Equipment pipework is labelled with the relevant chemicals. It was noted that only very low concentrations of developer are disposed of via drain.
- Waste bleach and fixer are transferred into 25L labelled containers for disposal as hazardous waste. It was noted that the technicians

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check the containers daily to ensure they do not overfill. The rate of flow is minimal, so the containers do not fill quickly.

- The dark room was viewed which has extractor fans and chemicals stored in labelled drums. Waste chemicals are stored in drums for collection.
- Waste collections are arranged by the technicians through J&G Environmental, and the SCSO stores copies of the consignment notes.

Small spillages are cleaned up using paper towels which are disposed of as hazardous waste. It was noted that the department is awaiting a spill kit.

The processes observed for control of hazardous substances appear effective and the technician was clearly knowledgeable of the process.

Discussions held with the SCSO on documented operational control procedures:

- 3.5.1 Operational Control
- 3.5.2 Waste management
- 3.5.3 Hazardous waste management
- 3.5.4 Discharges to water
- 3.5.5 Emissions to air
- 3.5.6 Energy management
- 3.5.7 Construction
- 3.5.9 Contractor control.

Procedure '3.5.1 Operational control' is a general procedure explaining responsibility for establishing and implementing operational controls which lies with the SCSO.

Procedure '3.5.2 Waste management' describes the process for managing non-hazardous waste and recycling. Responsibilities listed include the SCSO, waste porters, cleaners and all staff. It includes a process flow explaining where waste is generated, stored and disposed. Waste stream storage requirements are listed, and a waste inventory shows EWC codes, waste carriers' licences and expiry dates for individual waste streams. The procedure confirms the processes for waste storage, disposal and record keeping assessed during the EcoCampus Gold audit.

Procedure '3.5.3 Hazardous Waste Management' describes the responsibilities for the SCSO, technicians and waste porters. Waste streams listed are batteries, fluorescent tubes, chemicals and WEEE. The procedure explains all requirements for the control of hazardous waste including storage, disposal and record keeping. This adheres to the processes, including review of storage and consignment notes, assessed during the EcoCampus Gold audit.

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Procedure '3.5.4 Discharges to water' indicates that the site does not have an environmental permit or consent to discharge therefore no evidence was viewed.

Procedure '3.5.5 Emissions to air' lists responsibilities including the Facilities Manager, campus services team, appointed air-conditioning maintenance contractor and workshop technicians. The procedure describes the air-conditioning/refrigeration maintenance through the contractor. The process explains how equipment maintenance is scheduled and monitored through the Effective software. Thresholds for leak testing are described. An asset register is managed by the SCSO which includes the type, quantity, Global warming potential and CO2e of F-gas stored within each piece of equipment. The procedure confirms the process for ensuring compliance with the F-Gas Regulations which was assessed during the EcoCampus Gold audit.

Procedure '3.5.6 Energy management process' lists responsibilities including the HOCS, SCSO and Senior Health and Safety Officer. The procedure explains BMS controls for heating & cooling, manual meter readings, energy monitoring processes and completion of DEC's. The procedure refers to the Carbon Management Plan (CMP) 2018 - 2021 which was discussed with the SCSO. Actions and potential projects discussed include:

- LED lighting completed;
- Solar car ports not completed;
- Vehicle replenishments completed and electric vehicles purchased;
- Pipe insulation & BMS upgrade completed
- Other projects considered include reducing cooling in server rooms, moving to laptops from desktops, installation of a CHP plant (not viable). The university is also considering the feasibility of ground source heat pumps.

Procedure '3.5.7 Construction' lists responsibilities including the HOCS, Project board and Project team (design, demolition and construction phases), SCSO, HOCS, Facilities Mangers and BREEAM Assessor. The procedure outlines processes such as detailing specifications and invitations to tender.

Procedure 3.5.7 Construction should be update to:

- include the university objective to achieve BREEAM very good on all new builds;
- remove the reference to setting sustainability targets for each project, as this is not conducted in practice.

Procedure '3.5.9 Contractor control' lists responsibilities for controlling contractors. The SCSO explained contractor controls including risk assessments, method statements, permits to work and qualification requests. It was noted that qualification requests are not conducted for small contractors. The 'Contractor Health & Safety Site Induction' was viewed which includes the university's requirements for

OFI 6

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	COSHH, waste and environmental incidents. The induction also explains:	
	- hazardous substances are not to be disposed of into drains	
	- waste must be removed by contractors	
	- who to contact in the event of a spillage.	
	Operational controls were assessed further during the EcoCampus	
	Gold audit where physical controls such as bunding and waste storage	
	areas were observed.	
3.6	Emergency Preparedness and Response	
	Document(s) audited:	
	3.6.1 Emergency preparedness and response	
	Guide for chemical spill response planning	
	Comments:	
	Procedure 3.6.1 Emergency preparedness and response states that the	
	SCSO and Senior Health and Safety Officer ensure risk assessments	
	are reviewed and revised annually to identify all potential accident and	
	emergency scenarios. The SCSO recently conducted risk assessments	
	for spillages from transportation of chemicals from the campus and	
	workshops to the waste compound. The assessment indicated that	
	there is a very low risk of spillage due to the limited chemical use,	
	short distance to travel and use of suitable containers on site.	
	short distance to traver and use of salable containers on site.	
	The 'Guide for chemical spill response planning' has been updated	
	recently and covers the steps taken to address spillages including	
	bagging up, labelling and disposing of contaminated materials as	
	hazardous waste.	
	Steps include	
	 person transporting the chem is responsible except for post room 	
	delivery.	
	- Make area safe, use first aid,	
	- prevent further contamination – encircle drain,	
	- clean up using pads in spill kit.	
	- Place in bags, label and take to COSHH cabinet.	
	- Report to SCSO.	
	Troport to been	
	The testing of emergency procedures is to be conducted as part of	
	the spill training discussed in section 3.2.	
	5 5. 5	
4.1	Monitoring, Measuring, Analysis and Evaluation	
	Document(s) audited:	
	4.1.1 Monitoring, measuring, analysis and evaluation	
	Annual report 2017/18	
	Comments:	
		1

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Procedure 4.1.1 Monitoring, measuring, analysis and evaluation explains how the university monitors and reports environmental performance. The Annual report is completed by the SCSO and provides an overview of:

- emissions from utility usage (elec, gas and water consumption)
- waste produced and recycled.
- Emissions staff and student commuting.

The SCSO explained how data is gathered and analysed:

- Energy data is gathered using invoices and some manual meter readings.
- Water consumption is monitored through invoices.
- Waste data is provided by the waste contractors.
- Travel data on deliveries, vehicle use, flights and trains is provided by finance.

Spreadsheets were viewed for waste, energy and travel data which the SCSO uses to monitor performance against targets. For example, data confirmed that the university is currently achieving a 59% recycling rate.

Performance against objectives is discussed further in section 2.4 of this report.

4.2 Evaluation of Compliance

Document(s) audited:

EcoCampus Silver and Gold audits

Comments:

Evaluation of compliance was conducted as part of the EcoCampus Silver and Gold audits. Legal requirements relating to the following areas were assessed:

- Waste
- Energy
- COSHH
- F-Gas.

4.3 Nonconformity and Corrective Action

Document(s) audited:

4.3 Nonconformity and Corrective Action Incident report form

Comments:

Incidents are to be reported to the SCSO using the Environmental Incident report form. The form has three sections:

- Part A incident details, date, time, description
- Part B Corrective action, person responsible, date
- Part C Incident closed out, signature.

No incidents have been reported through the EMS to date.

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	Although the university has addressed non-conformities raised throughout EcoCampus audits, there is no register of nonconformities and associated corrective actions. The non-conformities and OFI's raised during internal and external audits should be added to the register of nonconformities including details of corrective actions having been implemented and checked for effectiveness.	Minor NC 2 OFI 6
4.4	Internal Audit Document(s) audited: 4.4. I Internal audit AUB Silver Audit Report – AUB-02 AUB Gold Audit Report – AUB-03	
	Comments: This audit is the first internal audit of the EMS, however two further EcoCampus audits have been conducted. The university has not developed an audit program as required by the clause 4.4 or ISO 14001:2015 clause 9.2.2.	MIN NC 3
4.5	Management Review Document(s) audited: Minutes from Environmental Committee meeting 31/05/2019	
	Comments: The management review is to be conducted by the Environment Committee. Minutes from the environment committee meeting on the 31st May 2019 confirm that the meeting to be held in October 2019 will include agenda items required by the clause. The current environment committee agenda cover carbon management including an update of performance against the sustainability plan.	

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