Aalborg University

Environmental Management Manual
Green Campus

Preliminary version, 24 February 2011
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1 Preface

At Aalborg University, we consider it an important task to contribute actively to promoting a sustainable development locally, nationally and globally. We do so by educating candidates who master sustainable solutions to problems in society and through research that paves the way for sustainable development. However, it is equally important that we ensure that the resource consumption and the environmental impacts from the university’s daily operations are reduced.

Therefore, Aalborg University has published this Environmental Management Manual on the environmental efforts of the university. This manual creates the framework to ensure that such efforts will promote continuous improvements. Last but not least, we will demonstrate to ourselves and the surrounding society that we are making a significant effort.

The Environmental Management Manual is intended for use by all employees, and it implements Aalborg University’s environmental vision and policy. By establishing the structure as to how we address environmental issues, the manual helps us prioritise our environmental efforts. It ensures that we know how to currently monitor our efforts and how to review and test these. The executive directors are actively committed to this task. Specifically, the manual helps us determine how to handle those of our operations which we know have a harmful impact on the environment. This applies to areas such as resource consumption, waste disposal, reconstruction work and procurement. Furthermore, the manual helps us clarify how to keep up to date with environmental legislation, how to promote our environmental emergency preparedness and how to accelerate increased environmental awareness among all AAU employees.

The Environmental Management Manual is inspired by and in compliance with the international standard for environmental management ISO 14001:2004.

Rector
Finn Kjærsdam
2 Environmental policy

Through education, research, external cooperation and operations, Aalborg University will work to reduce the university’s environmental impacts and proactively contribute to a sustainable development through current improvements.

Aalborg University will promote the environmental policy by:

1. complying with legal requirements set for the university’s environmental issues
2. reducing the environmental impact from the university’s operations, including the physical premises
3. making an effort to become carbon neutral with respect to the university’s energy consumption from operations and transport
4. creating increasing environmental awareness among the students through the university’s study programmes and across academic disciplines
5. contributing to the development of a sustainable society through research and relevant knowledge dissemination
6. using cost reductions achieved through energy efficiency to finance and ensure a continued effort for the benefit of the environment

With a view to specific initiatives, Aalborg University will:

7. construct and maintain an environmental management system which will provide an overview of the development in environmental impacts and ensure continuous environmental improvements
8. prepare an Environmental Management Manual
9. identify existing legal requirements set for the university’s environmental issues
10. prepare and report green accounts annually
11. set specific targets for further integration of environmental and energy-related issues into teaching and research
12. set specific targets for environmental improvements of university operations and transport
13. prepare an action plan for the implementation of the targets
14. draw attention to research and education in energy and the environment
15. produce an interactive website with information and dialogue about the university’s environmental efforts

Study the university’s vision and environmental policy at the environmental web portal www.green.aau.dk.
3 Extent of the environmental management system

**Green Campus**
The environmental management system for Green Campus comprises activities within the university’s daily operations, maintenance of buildings and the procurement of goods and services, e.g. the system handles physical flows related to the activities of Aalborg University, corresponding to the sections 1, 2, 3 and 6 as well as 7, 8, 9, 10, 12, 13 and 15 of the environmental policy.

**Green Minds**
Aalborg University is aware that several other activities at the university have a significant impact on the environment, e.g. education, research activities and relations to the surrounding society, locally, regionally and globally, cf. the adopted environmental policy. At first, these activities (Green Minds) are not incorporated into the environmental management system. A process will be initiated to assess and handle these matters with a view to incorporating these activities into a parallel system in accordance with the environmental policy.
4 The organisation of Aalborg University

Aalborg University is managed by a university board and organised into five faculties, including The Danish Building Research Institute (SBi), with a total of 18 departments and 11 schools, the Aalborg University Administration and the Aalborg University Library (AUB).

University board

Rectorate

RESEARCH AND EDUCATION
The Faculty of Humanities
The Faculty of Social Sciences
The Faculty of Engineering and Science
The Faculty of Medicine
The Danish Building Research Institute
18 departments
11 schools

SERVICE
Administration
Library

The organisational structure and a description of assignments appear from Aalborg University’s website
http://www.en.aau.dk/About+Aalborg+University/

4.1 Committees and cooperation

As part of the Aalborg University Administration, the Management Secretariat has a secretarial function for a number of consulting committees appointed by the Rectorate and the University Director. The committees comprise e.g. the Cooperation Committee and the Environmental Committee. The Aalborg University Environmental Committee (the Environmental Committee) has the overall responsibility for the environmental efforts of Aalborg University.
5 Environmental organisation

The environmental organisation is structured in such a way that all parts of the university are represented, see the chart below:

<table>
<thead>
<tr>
<th>Environmental Committee</th>
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</thead>
<tbody>
<tr>
<td>Environmental Group</td>
</tr>
<tr>
<td>Contact persons for environmental issues at all</td>
</tr>
<tr>
<td>- Faculties</td>
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<tr>
<td>- Departments</td>
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<tr>
<td>- Administration</td>
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<tr>
<td>- Basic study programmes</td>
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<tr>
<td>- Campuses</td>
</tr>
<tr>
<td>- AUB (Library)</td>
</tr>
<tr>
<td>- Student Society (observer status)</td>
</tr>
</tbody>
</table>

The environmental manager updates the detailed organisational chart and the list of contact persons for environmental issues.
6 Distribution of responsibility and authority in relation to the environmental management system

The executive directors of Aalborg University have the overall responsibility for the institution’s activities, including research and education, and the cooperation with the surrounding society. The executive directors also have the overall responsibility for the operations of Aalborg University. The Administration, the faculties and the departments are responsible for the practical implementation of functions in relation to procurement, operations and reconstruction work.

The executive directors ensure that the necessary resources are available for the environmental management system. The directors adopt the university’s environmental policy. At least once a year, the directors review the management system on the basis of a report from the Environmental Committee.

The Environmental Committee is appointed by the executive directors. The Environmental Committee is responsible for the operation of the environmental management system and for ensuring that it is monitored, that current improvements of the university’s environmental efforts are implemented and that the university employees are motivated to take part in the work to ensure environmental improvements. The Environmental Committee must ensure that an environmental policy, including objectives and targets, is prepared.

On the basis of e.g. the results of internal audits, the Environmental Committee reports at least once a year to the executive directors on the university’s compliance with the environmental management system. This reporting forms the basis of the executive directors’ review and the basis of the improvements of the environmental management system.

The Environmental Group for the environmental management system is appointed by the Environmental Committee. The Environmental Group is in charge of the progress of the environmental management efforts and the daily follow-up. The Environmental Group is headed by the environmental manager and also consists of the environmental coordinator of the Environmental Committee and a representative from the work environment organisation.

The environmental manager is appointed by the Environmental Committee. The function of the environmental manager is to support the Environmental Committee, and the environmental manager must ensure that the decisions of the Environmental Committee are implemented. The environmental manager and the Environmental Group are jointly responsible for gathering the information necessary to maintain the environmental management system, specifying significant environmental impacts and implementing current improvements. The environmental manager is responsible for preparing an environmental programme (green action plan) in accordance with clause 4.3.3 of ISO 14001 as well as green accounts on an annual basis. The environmental manager must ensure that relevant results and problems are presented to the Environmental Committee and that the green action plan and the audit reports are followed through.

The environmental manager is responsible for current contact with contact persons for environmental
issues at the units and must ensure that relevant information about the environmental management system and environmental improvements is sent to the contact persons for environmental issues. The environmental manager coordinates the information and educational activities in relation to the environmental management system.

The environmental manager prepares a list of relevant environmental legislation and regulations which Aalborg University must comply with.

The environmental manager is responsible for approving, regularly reviewing, updating and managing the documents and records of the system.

The contact persons for environmental issues are appointed at each of the university’s decentralised places of employment, including all departments, all campuses and all departments of the Aalborg University Administration. The contact persons for environmental issues are appointed by the heads of the relevant places of employment. Together with the heads of departments or administrative units, the contact persons for environmental issues are responsible for communicating the environmental management effort to their places of employment and for reporting environmental deviations and improvement proposals from the unit to the Environmental Group or the environmental manager.

The internal environmental auditors carry out internal audits to test whether the guidelines in this Environmental Management Manual are known and complied with. The auditors are appointed by the heads of the relevant places of employment in cooperation with the Environmental Group. From among the auditors, the Environmental Committee appoints a person to be in charge of audits, who is responsible for planning, implementing and reporting internal audits. The auditors carry out internal audits according to an audit plan prepared by the person in charge of audits and make a note on deviations, if any, as well as comments and proposals for improvement of the environmental efforts in an audit report.

In relation to the environmental management system, it is the responsibility of all employees to:

- comply with the Environmental Management Manual – including regulations applying to their own field of activity
- identify and report internal environmental deviations and proposals for improvement to the departments’ contact person for environmental issues or the environmental manager
- contribute to steadily improving the environment in their daily work and to reducing the university’s environmental impacts
- participate in the implementation of projects aimed to improve the environment.
7 Management of the environmental management system

7.1 Scope
This business procedure applies to procedures and activities aimed to ensure an effective and coherent environmental management system at Aalborg University. The management system ensures that task management and resource use are prioritised on the basis of an assessment of the importance of the tasks and the set frames in relation to time. These procedures comprise management, planning, prioritising, follow-up and reporting as regards Aalborg University’s most significant direct and indirect environmental impacts and the maintenance of the environmental management system.

7.2 Management
At least every fourth year, the executive directors revise the university’s environmental vision and policy. The executive directors adopt Aalborg University’s environmental vision and policy following a discussion with the heads of units and the Environmental Committee.

The executive directors adopt overall environmental objectives every year. The environmental objectives are related to the university’s environmental vision and policy. The Environmental Committee assist the executive directors in their follow-up on the environmental objectives.

The annual environmental programme (green action plan), which implements the university’s environmental vision and policy, is approved by the Environmental Committee. The Environmental Committee is responsible for preparing the environmental programme. The Environmental Committee and the information office are jointly responsible for communicating the environmental programme to the employees of Aalborg University.

The environmental objectives must be communicated to the heads of departments and administrative units by the Environmental Committee/the environmental manager. Together with the contact persons for environmental issues, the heads of departments and administrative units are responsible for maintaining an overview of the environmental objectives and targets and for ensuring that the targets are communicated to the employees and that the activities of the places of employment support these targets. They are also responsible for ensuring that resources are set aside for this work.

A follow-up on the progress of the environmental objectives is carried out at the meetings of the Environmental Committee. A follow-up on the set targets is carried out when a status on the university’s green action plan is prepared. Reporting of the environmental efforts is carried out through the green accounts.

The Environmental Committee is responsible for preparing the green accounts. They are prepared in cooperation with the Technical Services Unit. The green accounts comprise an evaluation of all objectives and a detailed analysis and assessment of particularly important and strategic targets and results requirements. The green accounts are discussed and approved by the executive directors. The green accounts are released and published on the environmental web portal.
The Environmental Committee updates an organisation plan on the environmental web portal.

7.3 Selection of significant environmental impacts
Every year, the Environmental Committee selects significant environmental impacts which are to be focus areas for the next twelve months.

This selection is based on the university’s resource consumption, waste, emissions and transport.

Each environmental issue is assessed with a view to:
A. the estimated volume/extent of the environmental issue
B. the degree of danger posed by the environmental issue
C. the diffusion of the environmental issue (only emissions/waste)
D. solutions at hand to improve or take measures to prevent the environmental issue
E. motivation and visibility. Are the affected employees motivated to take action to solve the problem? Is the environmental issue visible (in a broad sense)?

Among the identified environmental impacts, the issues which are considered significant are selected, and they are monitored and reported in the green annual accounts. As for selected significant environmental issues, specific targets are to be set for improvement with due regard to finances and practicability.

The targets for reducing the environmental impacts from Aalborg University appear from the annual environmental programme.

7.4 Deviations and proposals for improvement
All employees must report observed faults and deficiencies (deviations) as to the way in which the university handles its environmental issues. Furthermore, all employees can propose improvements of the environmental management system and its procedures as well as specific environmental improvements and preventive actions.

In the event that deviations are discovered and in the event that an employee wishes to supply proposals for improvement, the employee contacts his/her local contact person for environmental issues and the ‘Problem form’ is completed during the conversation or subsequently. This form is sent to the environmental manager who makes sure that immediate remedial action (in the event of acute problems) is initiated and that the deviation or the proposal for improvement is discussed at the next meeting of the Environmental Group. The Environmental Group subsequently decides and initiates an appropriate remedial or preventive action, including an action plan and the appointment of a person responsible for the action plan.

7.5 Audits of the environmental management system
Audits of the environmental management system are carried out by internal and/or external independent auditors who interview heads of units and departments, managers and employees and control efforts made. The result of the audit is documented in an audit report describing detected
deviations and proposals for improvement, if any.

In connection with the audit, it must be tested whether:
- the guidelines of the management system are known, are suitable for Aalborg University and are used
- Aalborg University complies with legislation relevant to the operations of the university, and whether new regulations have come into force, which must be complied with by Aalborg University as an institution
- heads of departments and units, managers and employees are familiar with the policies and objectives on which the system is based
- deviations, established in previous audits, have been solved

Audit planning must take previous audits and established deviations into account. The audit procedures followed in internal audits are maintained by the person in charge of audits.

7.6 Management evaluation of the environmental management system
The Environmental Committee is responsible for evaluating the environmental management system at least once a year, including an assessment as to whether the technical and financial conditions for maintaining the environmental management system and implementing current improvements were present. The evaluation is presented to and approved by the executive directors.

The evaluation is based on:
- audit reports and previous evaluations
- the green annual accounts (including status for targets and action plans)
- the assessments and proposals of the environmental manager and the contact persons for environmental issues as regards the environmental management effort
- legal requirements and other provisions
- views of significant interested parties

7.7 Planning of external communication
Based on Aalborg University’s environmental vision and policy, the information office in cooperation with the Environmental Committee prepares an annual communication plan of significant communication activities on environmental issues or other environment-related subjects which are planned to be communicated to the public through campaigns or the like. The plan must be communicated internally.

It is the responsibility of the heads of departments and administrative units in cooperation with the information office and the Environmental Committee to evaluate significant campaigns. The evaluations are published on the environmental web portal.
### 7.8 Registrations

<table>
<thead>
<tr>
<th>Registration</th>
<th>To be stored with/on</th>
<th>For how long</th>
</tr>
</thead>
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<tr>
<td>Organisation plan</td>
<td>Internet</td>
<td>3 years</td>
</tr>
<tr>
<td>Communication plan</td>
<td>Intranet</td>
<td>3 years</td>
</tr>
<tr>
<td>Aalborg University’s environmental vision and policy</td>
<td>Intranet</td>
<td>3 years</td>
</tr>
<tr>
<td>Environmental targets and action plans</td>
<td>Intranet</td>
<td>5 years</td>
</tr>
<tr>
<td>Green accounts</td>
<td>Internet and intranet</td>
<td>5 years</td>
</tr>
<tr>
<td>Management evaluation of the environmental management system</td>
<td>Intranet</td>
<td>5 years</td>
</tr>
<tr>
<td>Audit reports</td>
<td>Intranet</td>
<td>5 years</td>
</tr>
<tr>
<td>Internal audit procedures</td>
<td>Intranet</td>
<td>3 years</td>
</tr>
<tr>
<td>Assessment as to the compliance with legal requirements</td>
<td>Technical Services Unit</td>
<td>3 years</td>
</tr>
</tbody>
</table>
8 Operations and maintenance of buildings

8.1 Scope
This business procedure applies to activities concerning operations and maintenance of Aalborg University and procurement for the university.

Operations comprise e.g. the consumption of electricity, heat, water and paper, waste disposal, maintenance of buildings and reconstruction work.

Procurement covers a number of goods and services for Aalborg University, e.g. IT equipment, office accessories, copying machines and other electrical goods, office furniture and paper. Furthermore, Aalborg University procures e.g. canteen operations, cleaning and removal services.

8.2 Operations of Aalborg University
The executive directors of Aalborg University have the overall responsibility for the operations of Aalborg University. The practical implementation of most activities in relation to operations and maintenance is carried out by the Technical Services Unit. Aalborg University rents its buildings from public and private landlords, so maintenance, including energy improvements, is carried out in cooperation with the relevant landlords.

The relevant departments are responsible for activities related to the maintenance of their own equipment.

8.3 Resource consumption and waste disposal
The Technical Services Unit monitors the consumption of energy, heat and water and registers alert notifications in the event of an increase in consumption.

The Technical Services Unit is responsible for collecting performance indicators and data on the consumption of electricity, heat and water on a regular basis. In the event of deviations relative to expected consumption, the Technical Services Unit in cooperation with the environmental manager assesses how to react.

The Technical Services Unit is responsible for implementing waste separation which, as a minimum, meets the municipal waste regulations. Containers for the separation of waste must be placed at the individual units or in connection with the buildings of Aalborg University. The Technical Services Unit dispenses special battery containers. All special containers must be equipped with easily understandable labels.

Every employee is responsible for economising on the consumption of electricity, heat and water as well as other resources and for separating waste correctly. Guidelines for the separation of waste can be found on the intranet.
The environmental manager is responsible for providing information about the university’s resource consumption and its handling of waste through news on the intranet.

8.4 Reconstruction work
In the event of reconstruction work in relation to Aalborg University’s rented premises, the landlord in cooperation with the university administration (the Technical Services Unit) and the users are jointly responsible for ensuring that the possibilities of using green solutions are assessed and that any inconvenience for employees in connection with the reconstruction work is minimised as much as possible (noise, dust, etc.).

8.5 Maintenance of equipment
The Technical Services Unit is responsible for calling in assistance in the event of faults and deficiencies of fixed installations or when service of equipment is to be carried out for instance cooling systems, ventilation systems, lifts, etc. Obligatory service must be ascertainable.

The relevant departments are responsible for maintaining their own installations.

IT equipment is maintained by the relevant IT departments.

Laboratory equipment is maintained by the relevant departments.

8.6 Storage of chemicals
The respective departments are responsible for correct storage of chemicals in relation to fire risk, environment and working environment conditions.

8.7 Monitoring and reporting in relation to the operations of Aalborg University
Any person who becomes aware of an environmental problem which cannot be solved immediately and which requires special action is responsible for reporting the problem to the contact person for environmental issues or the environmental manager of the place of employment, who will assess the problem and complete the ‘Problem form’. Relevant parties will be involved in the follow-up procedure.

The environmental manager is responsible for currently incorporating environmental requirements and information relevant to the operations of Aalborg University into the environmental management system.

Aalborg University’s effort in relation to resource consumption, waste disposal, etc., is assessed annually in the green accounts. Targets for improvement can be set in the annual green action plans.

8.8 Compliance with legal requirements
The Technical Services Unit must identify relevant environmental legal and other requirements which
Aalborg University has decided to comply with and decide how these requirements will apply to the university’s environmental issues. The respective departments are responsible for complying with legal requirements in relation to their own activities.

8.9 Emergency preparedness
The work environment organisation is responsible for emergency preparedness in the event of fire and accidents. For a more detailed description of the university’s emergency preparedness, including alarm call and evacuation instructions, please see the work environment organisation.

In the Technical Services Unit, emergency preparedness procedures in the event of fire and accidents must be at hand, including emergency preparedness in the event of environmental accidents.

8.10 Procurement
All purchases must be carried out in compliance with the "Procurement policy of Aalborg University" of 23 August 2007.

The procurement policy can be found at the website of the Finance and Accounts Department, www.okonomi.adm.aau.dk/indkob/Indkoebspolitik (only in Danish).

Suppliers of goods and services which fall under the category of significant environmental issues must be informed of relevant environmental requirements caused by the environmental policy of Aalborg University.

8.11 Registrations

<table>
<thead>
<tr>
<th>Registration</th>
<th>To be stored with/at</th>
<th>For how long</th>
</tr>
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<tbody>
<tr>
<td>The corporate waste disposal regulation of Aalborg Municipality</td>
<td>Municipality</td>
<td>Not to be stored</td>
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<tr>
<td>The corporate waste disposal regulation of Esbjerg Municipality</td>
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<td>The corporate waste disposal regulation of Ballerup Municipality</td>
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</tr>
<tr>
<td>Waste – Guidelines for collection, treatment and disposal</td>
<td>Intranet</td>
<td>5 years</td>
</tr>
<tr>
<td>Instructions for emergency preparedness in the event of fire and accidents</td>
<td>Intranet</td>
<td>5 years</td>
</tr>
</tbody>
</table>
9 Staff, training and education

9.1 Scope
This business procedure applies to environmentally related training, education and development of the employees at Aalborg University and ensures that good environmental habits are maintained.

9.2 Introduction for new employees
The head of unit must ensure that new employees are offered to participate in a general introduction day. At the introduction day, the environmental management effort of Aalborg University is a fixed item on the agenda.

The contact person for environmental issues is responsible for introducing the new employee to the environmental tasks of the unit, including making the new employee familiar with common practice at the unit, providing the employee with an overview of significant regulations and informing the employee about the environmental management effort.

9.3 Competence development
The heads of departments and administrative units must ensure – in cooperation with the individual employee – that the employee acquires the competence required to handle his/her tasks in an environmentally conscious way, and that time will be set aside to acquire new knowledge about the environment and to develop the employees’ environmental competence.

Each place of employment appoints a contact person for environmental issues. The contact person must ensure coherence between the work of the place of employment and the environmental efforts of Aalborg University.

The contact person for environmental issues of each unit discusses, in his/her unit, new possibilities and ideas of significance for habits and attitudes on the most important focus areas for the environmental management effort and contributes to the development of this effort.

The heads of departments and administrative units must ensure that the environmental efforts are included in the agenda at meetings at the place of employment on a regular basis and at least once every six months. The contact person for environmental issues at the place of employment is

| Emergency preparedness in the event of fire and accidents (being prepared) | Technical Services Unit | 5 years |
| List of suppliers who must be informed of environmental requirements | Technical Services Unit | 3 years |
responsible for the content of the item on the agenda. As a minimum, it must be discussed whether the environmental efforts have an effect and whether adjustments are needed. The results of the discussions are communicated to the environment manager.

Together with the Environmental Group, the Environmental Committee ensures that internal information material about the environmental management system is prepared and communicated. The environmental manager is responsible for updating the material with relevant and practical information.

### 9.4 Registrations

<table>
<thead>
<tr>
<th>Registration</th>
<th>To be stored on</th>
<th>For how long</th>
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</thead>
<tbody>
<tr>
<td>Information material on environmental management</td>
<td>Intranet</td>
<td>3 years</td>
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