AFC System Pvt. Ltd. - e3 2019 Guideline document		
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DESIGN FOR ENVIRONMENT (DFE) GUIDELINES FOR FURNITURE MANUFACTURING

Introduction:

AFC SYSTEM PVT. LTD. is committed to reducing the environmental impact of its products and manufacturing processes using Design for Environment (DFE) principles. This document outlines the guidelines that our product designers and engineers should follow to ensure that our furniture products are designed with environmental considerations in mind.

Product Design:

Material Selection: Design team should select materials that are environmentally friendly, non-toxic, and have minimal impact on the environment. The materials should be recyclable, reusable, biodegradable or having high recycled material content wherever possible. Eliminate of the use of toxic materials as per BIFMA section 7. Maximize the use of renewable materials.

Minimization of waste: Work with manufacturing and product engineering to utilize our integrated design process for the reduction of waste in all forms.

Product Life Cycle: Designers should consider the entire life cycle of the product, from raw material extraction to disposal. The product should be designed to have a longer life span, be easy to repair, and to have minimal environmental impact during its use and disposal. Design product for extended life reuse, incorporating the ability to upgrade finishes and re-configure or configure with modular component into a new usable form. Provide instructions for end-of-life management of products. Conduct LCA (life cycle assessment) and EPD (Environmental product declaration) to minimise the environmental impact.

Energy Efficiency: Designers should incorporate energy-efficient features such as LED lighting, automatic shut-off mechanisms, and power-saving modes into the furniture design.

Assembly / Dis-assembly: Maximize product design to enable rapid disassembly to base material recycling stream.

Packaging: Designers should design products with minimal packaging that can be easily recycled or reused. The packaging should be designed to protect the product during transportation and storage.

Manufacturing Processes: Manufacturing processes should be in line with the product design to achieve the required quality of the product.

Energy Efficiency: Manufacturing processes should be designed to be energy-efficient, using renewable energy sources wherever possible.

Waste Reduction: Waste should be minimized using efficient production methods and the recycling and reuse of materials.

Water Conservation: Manufacturing processes should be designed to conserve water, minimize water use, and reduce water pollution.

Chemical Management: Chemicals should be managed properly to ensure that they are used and disposed of safely and do not harm the environment. Ensure product meets low-emission test standards as defined by BIFMA section 7.6