5.4 Furniture and Office Systems

5.4.1 Office Furniture and Workstation Panel Systems

An Overview

Office furniture and panel systems are made with any one or a variety of materials including gypsum board, metal, wood and wood based products, plastic and fabric. As a result of the different materials that may be used in manufacture, various environmental issues must be taken into account.

The design and manufacture of office furniture and panel systems can effect resource utilization, pollution, and worker health and safety. Waste generated as a result of manufacture and disposal of these products can be minimized through reuse, remanufacture and recycling.

Office furniture has traditionally been re-usable and of long life and usefulness if use and potential future use has been taken into account. Workstation panel walls are reusable. These walls can be re-configured into new partitions or recycled. They may contain from 20 per cent to 50 per cent recycled materials. Vinyl board panels can be disassembled intact and ground up to produce gypsum board. Vinyl face and the drywall paper are either screened or burnt off to expose the gypsum for recycling.

Potential Environmental Impacts

- Materials used in office furniture and workstation panel systems may emit VOCs when installed, immediately impacting indoor air quality.
- Building agents such as resins used in composite wood products can also affect indoor air quality, but the use of veneers and laminates can help to minimize these effects, as can low VOC content or water based liquid surface coatings.
- Materials used in the manufacture, treatment, installation, and final cleaning of fabrics can contain VOC, which in turn become secondary sources of VOC emissions.

Things to Consider If You Write Your Own Specifications

This is an opportunity to add clauses in furniture and panel system specifications to address:

- Re-use of existing furniture where possible and refurbishment if desired. The environmental benefits of refurbishing are: it eliminates the need to purchase new furniture and manufacturing processes (including the use of new materials) have adverse effects on the environment
- By promoting the re-use of existing furniture, used/surplus furniture does not go to the landfill
- When new furniture is required, choice of a company that demonstrates environmental responsibility in its manufacturing processes (i.e. on-site recycling centres for fabric, etc.)
- Request for re-usable or returnable packaging and shipping materials
- When alternatives exist, avoidance of the use of products containing ozone depleting substances and volatile organic compounds. Avoid PVC materials
- Reusable demountable panel systems
- Recycled content (the higher the better)
- Drywall that does not contain fibreglass reinforcement.

Specifications from Other Agencies and Seals of Approval

Environmental Choice program guideline ECP-66
(details at www.environmentalchoice.com/guidelines/pdfs/ecp-66.pdf)

5.4.2 Demountable (full wall) Partitions

An Overview

Demountable partitions are fully or partially prefabricated gypsum board based units whose primary functions are to restrict vision, sound and passage. These walls are 100 per cent reusable. No material is sent to landfill sites as a result of office reconfigurations. The most environmentally sound products feature:

- Materials that are 100 per cent reusable
- An electrostatic powder coating system that collects and recycles over 95 per cent of paint overspray and contains no solvents, eliminating emission of dangerous air-borne particles
- Excess fabric that is recycled as automobile insulation
- Scrap gypsum that is recycled and reused
- Panels shipped unboxed eliminating additional waste.

Potential Environmental Impacts

- End- of- use markets or deconstruction still to be proven.

Things to Consider If You Write Your Own Specifications

This is an opportunity to add clauses in demountable partition tile specifications to address desirability of:

- Recycled steel framing
- A fibre core made of recycled paper products
- Paint applied by an electrostatic powder coating process
- Longevity.

Specifications from Other Agencies and Seals of Approval

Environmental Choice program guideline ECP-70
(details at www.environmentalchoice.com/guidelines/pdfs/ecp-70.pdf)

Case Study: Eco-Labels Appearing on Furniture

If you build it, they will buy. At least that's what Vancouver-based Ornamentum Furniture hopes with their new line of eco-labelled tables and cabinets now available at Bonaparte Designs in Yaletown. Ornamentum buys its wood from two small-scale logging operations and a small sawmill that were recently certified by the Silva Forest Foundation. Silva certification, which recognizes sustainable logging practices, is viewed as one of the strictest certifications amongst a confusing number of certifications now underway in B.C.

Ornamentum Furniture

Herb Hammond, founder of the Silva Forest Foundation, highlights the critical role consumers play in supporting environmental initiatives. "We are ushering in a new era of forestry, one where consumers can now have a choice in purchasing products that come from intact forests or purchasing products that come from clear-cuts and tree farms."

Source: Vancouver Sun, March 30, 2000