SHENZHEN ENVIRONMENTAL ASSEMBLY COMPANY

Environmental Instruction

Workshop 3 – Packaging

(EI-13)

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Director

Revision History

Revision Date	Description	Sections Affected	Revised By	Approved By
01-01-2006	First issue	- -	- -	Chen Dak

1.0 Purpose

This instruction provides guidelines on the best practices to be adopted for controlling environmental impacts potentially generated from the operations and activities of the Workshop 3 – Packaging Control.

2.0 Scope

This instruction is applicable to all the operations and activities conducted and managed by Workshop 3. These activities and operations include,

- Storage of product packaging;
- Product packaging;
- Returned packaging materials; and
- Packaging enhancement.

3.0 Procedure

3.1 Resources Management (including plastics film/wrap, wooden pallets, plastic boxes/trays, metallic containers, expandable polystyrene and adhesive etc..)

- Ensure all the raw materials acquisition, storage and usage under good management such as the adoption of “First in, First use” management principle to ensure the functioning of raw materials, parts and chemicals and also prevention of the generation of expired raw materials.
- Prevent over-ordering of chemicals and time-sensitive parts and components.
- Ensure good storage of wooden parts and pallets to prevent exposure to sunshine and moisture. Replace all the old wooden pallets with durable plastic pallets.
- Investigate with the design team the possibility and feasibility (by drop test) of replacing the existing expandable polystyrene package filling materials by recycled paper cardboard. Minimize the use of expandable polystyrene and other plastics in product package.
- Labelling system should be used to indicate the batch number and source of packaging materials in order to ensure the quality and conformity to specifications.
- EI-08 Resource Conservation shall be considered as a supplement to this section.

3.2 Energy Management

- Adopt motion sensors and auto-lighting system to less frequent-visit packaging materials warehouses in order to minimize the use of unnecessary electricity.
- Select energy-efficient ventilation system (e.g. air conditioners) for the packaging section.
- Select energy efficient lighting, machines and equipment.
- Install thermostats to ensure the workshop temperature is kept at around 22 °C to 25 °C.

- Perform regular maintenance to all the equipments to optimise energy consumption.
- If possible, use city electricity and minimize the use of diesel-driven generator (to be organized by Administration Department).
- Employ external consultant to conduct energy audit to the operation regularly and explore the use of demand side management (to be managed by Administration Department).
- Use energy saving light bulb and fluorescent tubes to replace the old lighting system (e.g. tungsten light bulb).
- EI-08 Resource Conservation shall be considered as a supplement to this section.

3.3 Air Pollution Control (e.g. exhaust air using solvent/adhesive and argon soldering)

- Employ external consultant to conduct indoor air quality audit to optimise the fresh air intake and contaminated air exhaust rate.
- Separated ventilation system shall be provided for solvent and adhesive application areas.
- Argon soldering shall only be performed in the restricted areas. Fume generated shall be ventilated to the air scrubber of Workshop 2.
- Non-ozone depleting fire distinguishers shall be available at the workshop. Annual check shall be performed to each fire extinguishers to ensure no leakage and proper functioning of these equipment.
- Dust and particulates generated from wood sawing section shall be collected by bag filter system to prevent the generation of respiratory suspended particulates.
- Adequate personal protective equipment (including goggles & masks) shall be provided to all employee of the wood sawing section.
- EI-05 Air pollution Control shall be considered as a supplement to this section.

3.4 Noise Management

- Perform regular maintenance to wood sawing machines and packaging line to minimize the noise generated from the mechanical moving parts.
- If possible new equipment and exhaust systems with less noise impacts (silence-type) shall be procured to replace the old and depreciated systems.
- Noise barrier shall be properly installed at the wood sawing area. All wood sawing workers shall be equipped with personal protective equipment (e.g. ear plug) to mitigate the occupational noise impact.
- EI-07 Noise Pollution Control shall be considered as a supplement to this section.

3.5 Waste and Rejected Products Management

- All returned packaging including plastic boxes/PVC trays and metallic containers shall be careful inspected to maximise the possibility of reuses. All retired plastic boxes/trays and metallic containers shall be well segregated to enhance recycling

and reuse. All waste metallic wastes shall be collectively stored in the green bins located at the storage area.

- All the paper packaging shall be stored properly (with humidity control and stored away from water and moisture) in order to minimize wastage.
- All general wastes (e.g. general refuses) shall be collected in the blue rubbish bin located at the waste storage area of Workshop 3. Rubbish shall be collected by contractor everyday. No other wastes except general refuses are allowed to be disposed of in the blue rubbish bin.
- Paper wastes shall be segregated from the main waste stream. They shall be packed properly and stored in the waste storage area and away from other contamination. Waste paper collection shall be arranged by Administration Department.
- All returned expandable polystyrene packaging shall be assessed for their reusability. All expandable polystyrene waste ranked as “reusable” shall be segregated and transferred to packaging line for new packing. All the expandable polystyrene wastes ranked as “non-reusable” will be stored and collected by licensed collectors for volume reduction and recycling (to be arranged by Administration Department).
- Perform regular maintenance to all the packaging line to minimize the generation of rejected products. Workshop supervisors shall ensure the proper functioning of the packaging line to minimize the generation of wastes.
- Investigate the use of reusable metallic corner enforcer to in replacement of plastic warp/films in piling up the products on the pallet for transportation.
- Influence and encourage clients to adopt the packaging “take-back” system in order to maximize the reuse of the durable packaging (such as plastic trays, metallic containers) (to be arranged by Sales and Marketing Department).
- EI-04 Waste Management shall be considered as a supplement to this section.

3.6 Wastewater Pollution Control and Management (e.g. air scrubber and domestic wastewater)

- Wastewater generated from air scrubbers (located at Workshop 2) shall be properly drained to the central wastewater treatment system for physical (bag filtering) and chemical (air flotation) treatment (to be managed by supervisor of Workshop 2).
- Wastewater generated from toilet and non-manufacturing process (floor cleaning) shall be diverted to the sewage treatment plant at the ground for pre-treatment before discharging to the public sewer.
- Ensure no chemicals or other industrial waste liquids are discharged to the domestic wastewater collection point.
- EI-06 Water Pollution Control shall be considered as a supplement to this section.

3.7 Chemicals and Hazardous Materials Management (e.g. solvents/ adhesive/waste chemicals)

- Ensure chemicals (adhesive & lubricating oil for fork-lift) shall be handled and stored in good conditions to prevent spillage and leakage.

- Ensure chemicals / materials are not over-ordered.
- Ensure material safety data sheet (MSDS) is available at the convenient point of the workshop for inspection.
- Workshop supervisor shall conduct awareness and competence training (including fire drill, chemical waste handling, emergency handling) to workers according to the staff training plan.
- All waste chemicals shall be properly labelled and stored according to the legislative requirements.
- All waste chemicals shall be collected by licensed collectors for treatment. A copy of collection record and the collection amount shall be maintained for checking purpose.
- EI-09 Handling and Storage of Chemicals shall be considered as a supplement to this section.

4.0 Monitoring and Checking

The Production Manger / Production Management Manager shall ensure proper storage, usage and handling of raw materials, chemicals and other materials in the workshop, storage facilities through regular inspection.

In case ofnonconformity, the responsible managers shall initiate investigation and corrective actions in accordance with EP-07 Enquiry / Complaint / Nonconformity Handling.

5.0 Records

Record Description	Record Location/ Retention Responsibility	Minimum Retention Time
Nil	Nil	Nil

6.0 Appendix

Nil.