



NEW ZEALAND  
PAPERBOARD  
PACKAGING  
ASSOCIATION (INC.)

## ENVIRONMENTAL ACTION PLAN – WORKSHEET/ASSESSMENT

Organisational Name:

Contact Person:

Address:

Phone Number:

Email address:

**Objective:** to encourage the implementation of the New Zealand Paperboard Packaging Industry Code of Practice through the development of a Company Action Plan in order to fulfil the paper sector's obligations under the Packaging Accord.

These obligations include:

- i. Encouraging resource and energy efficiency in the manufacture of paperboard packaging;
- ii. Encouraging the use of agreed environmental operating standards (Code of Practice) by all NZPPA member in the manufacturing of paperboard packaging;
- iii. Encouraging NZPPA members to promote responsible behaviours by customers;
- iv. Encouraging packaging designers and producers to develop more effective use of paperboard packaging;
- v. Assisting NZPPA member to comply with the Code of Practice and
- vi. Enabling NZPPA member to establish a consistent performance monitoring framework to measure progress.

This worksheet/Assessment has been designed for the paperboard packaging industry as a tool for companies to identify and manage environmental issues associated with their operations. Some key environmental issues that may need to be addressed could include:

- the recycling and disposal of waste, including paperboard, inks, paper, plates and pallets;
- the proper disposal of solvent/chemical waste;
- the management of dangerous goods;
- the discharge of pollutants into the stormwater and sewer system and /or waterways;
- the discharge of Volatile Organic Compounds into the atmosphere from solvent use;

- the impact of noise on staff and the surrounding community;
- the impact on the environment from emergency situations; and
- better managing the company by the adoption of cleaner production principles.

## PRODUCTION QUESTIONS

What type of paperboard packaging processes and printing operations are on the site:

What are the typical wastes generated by these operations:

### Use of Chemicals

- Do you use and store **solvents**: YES / NO

*If yes:*

- - ⇒ Do you have general strategies for the management of solvents adopted to reduce the overall emission of volatile organic compounds (VOCs) from solvents?
  - ⇒ Have you considered the substitution of solvent with other less volatile products wherever possible?
  - ⇒ Do you keep containers of solvents and solvent-based inks kept closed when not in use to reduce the evaporation of solvent to atmosphere?
  - ⇒ Have you considered alternatives to cleaning solutions containing solvents?
- Which type of **ink** do you use?
 

|               |          |
|---------------|----------|
| Water Based   | YES / NO |
| Solvent Based | YES / NO |
| Oil Based     | YES / NO |

*If oil or solvent based:*

- ⇒ Do you recycle spent inks (e.g. reblend)?
- ⇒ Have you given consideration to purchasing inks from distributors who are willing to take or buy back unused or spent inks?
- ⇒ Are any solvent based inks only be used in a well ventilated area?.
- ⇒ Have you considered the use of vegetable oil or water based inks, or ultraviolet inks and electron beam drying inks, to minimise the environmental impacts?
- ⇒ Do you dispose of the oil or solvent based inks through a licenced waste treatment facility?

- Do you use any of the following **chemicals**:

|                         |          |
|-------------------------|----------|
| Plate Finisher (Gum)    | YES / NO |
| Thermal Plate Protector | YES / NO |
| Glues/Adhesive          | YES / NO |
| Varnish                 | YES / NO |
| Dispersion Coating      | YES / NO |
| Oils                    | YES / NO |
| Grease                  | YES / NO |
| Fuel                    | YES / NO |

*If yes:*

- ⇒ Have you taken steps to effectively manage emissions?
- ⇒ Have you considered using either solventless **adhesive** or using suitable containers that effectively seal the adhesive to minimise vapour release?
- ⇒ Have you considered the use of extrusion lamination as a possibility?
- ⇒ Have you considered an extraction system to duct the vapours away to a treatment/absorption unit?
- ⇒ Do you store adhesive glues in sealed containers to prevent excessive odours and dehydration of the product?
- ⇒ Do you place drip trays under all adhesive glue dispensers to contain any spills or releases?
- ⇒ Are all fuel storage areas and fuel tanks on site should be adequately bunded?
- ⇒ Is excess or used oil collected by a waste oil recycler?
- ⇒ Are all printing presses positioned on drip trays and rags used to clean up any excessive lubricating oil released from the press?
- ⇒ Are oily rags disposed of as a hazardous waste?
- ⇒ Do you have all waste non-soluble adhesive glues collected by a licensed contractor and disposed of at a licenced disposal facility?

### **Chemical Management**

- Are hazardous substances, including solvents, adhesives and inks, stored in a designated area, provided with bunding to contain spills?
- Do you have the appropriate protective equipment for using hazardous substances?
- Do you have a Chemicals manifest?
- Do you have an 'Emergency Response Plan' for any incident or crisis (e.g. evacuation plan, emergency equipment, spill clean up procedures, site plan, chemicals manifest, list of emergency contacts, trained staff)?
- Do you have, or need a dangerous goods permit for the storage of fuels or chemicals?

## **Air Emissions**

- Do you have any of the following air emissions?

Ink Drying YES / NO

Adhesives or glues YES / NO

Solvent Storage and Usage YES / NO

*If yes:*

- ⇒ Do you have general strategies for the management of solvents, inks, adhesives etc. to reduce the overall emissions of volatile organic compounds (VOCs) and other vapours?
- ⇒ Do you keep containers of solvents and solvent-based inks closed when not in use to reduce the evaporation of solvent to atmosphere?
- ⇒ Do you only use these substances in a well ventilated area?
- ⇒ Do you have a closed container for rags used for cleaning?
- ⇒ Have you considered the installation of an extraction system to be used to duct the vapours away to a treatment/absorption unit?

## **Noise**

- Do your processes generate Noise? YES/ NO

*If yes:*

- ⇒ Do you have a permit for generating noise on the premises? YES / NO / N/A
- ⇒ Do you have a hearing test policy and procedure? YES / NO
- ⇒ Do you have suitable hearing safety equipment and monitor its use? YES / NO
- ⇒ Do you have a complaints management procedure to handle any complaints from Internal Employees, the Public or Regulatory Authorities, regarding air emissions (including odours) and/or noise? YES / NO

## **Liquid Waste**

- Do you generate any liquid waste? YES / NO

*If yes:*

- ⇒ Do you have a management plan for the disposal of any liquid waste to ensure that there is no detrimental impact on the environment?

- ⇒ Non-soluble adhesive glues and oil or solvent based inks should not be disposed of to stormwater or sewer or through the solid waste stream. Do you dispose of them to a licenced waste treatment facility or have them recycled.
- ⇒ Do you have any necessary Trade Waste Agreement, Licence or approvals for discharges with the local Authority?

**Solid Waste**

- Which of the following solid (wastepaper and cardboard) wastes do you dispose of?
  - Paper
  - Cardboard
  - Other \_\_\_\_\_

*If yes:*

- ⇒ Do you recycle all waste cardboard or paper generated through a paper or cardboard recycling contractor?
- ⇒ Have you considered altering or improving work practices to reduce volumes of waste paper generated during the manufacturing processes?
- ⇒ Have you considered implementing or updating computer technology in machinery where possible?
- ⇒ Have you considered the replacement of old machinery to more sophisticated machinery?
- ⇒ Do you encourage clients to use recycled paperboard and inform them of the increasing need to consider environmental awareness?
- ⇒ Do you reuse where possible or return wooden pallets to the supplier for reuse?

- How do you dispose of your solid wastes?

|                      |         |
|----------------------|---------|
| Contractor Collected | YES/ NO |
| Council Collected    | YES/ NO |
| Other                | YES/ NO |

- Have you considered if there are better more environmentally friendly ways of disposal?

## ENVIRONMENTAL PROCESSES

### Management Systems

- Do you have an environmental management system?
  - ISO14001
  - EnviroMark - what level? Bronze/ Silver/ Gold/ Diamond/ Platinum
  - Other \_\_\_\_\_

### Resources Efficiency

- Who is the person responsible for resource efficiency?
  - Everyone
  - No-one
  - Name \_\_\_\_\_

- Have you undertaken resource efficiency initiatives in the following areas:

|   | <b>Energy</b> | <b>Water</b> | <b>Raw materials</b> | <b>Transportation</b> |
|---|---------------|--------------|----------------------|-----------------------|
| <b>Approx % of costs</b>                |               |              |                      |                       |
| <b>Policy</b>                           |               |              |                      |                       |
| <b>Audit</b>                            |               |              |                      |                       |
| <b>Improvement program with targets</b> |               |              |                      |                       |
| <b>Measurement and reporting</b>        |               |              |                      |                       |
| <b>Staff education</b>                  |               |              |                      |                       |

- ⇒ Which resource has the greatest impact on your company?
- ⇒ Which resource should you focus your attention on?
- ⇒ What action would be most appropriate?

**Waste Reduction**

- Who is the person responsible for waste minimisation?

- Everyone
- No-one
- Name \_\_\_\_\_

- What steps have you taken to reduce waste:

|   |         |
|---|---------|
| Conducted a waste audit                     | YES/ NO |
| Identified waste streams                    | YES/ NO |
| Site Flow Diagram of resource use and waste | YES/ NO |
| Developed programme for each waste stream   | YES/ NO |
| Set Targets for waste reduction             | YES/ NO |
| Measured and reported outcomes              | YES/ NO |

Tick all the materials that you use and reuse or recycle

- |  |  |
|--|--|
| <input type="checkbox"/> Paper (generated during the production process) | <input type="checkbox"/> Paper (office waste paper)  |
| <input type="checkbox"/> Cardboard                                       | <input type="checkbox"/> Glass                       |
| <input type="checkbox"/> Plastic   | <input type="checkbox"/> Plastic drums or containers |
| <input type="checkbox"/> Plastic strapping                               | <input type="checkbox"/> Shrink wrap or film         |
| <input type="checkbox"/> Pallets   | <input type="checkbox"/> Rags                        |
| <input type="checkbox"/> Screens   | <input type="checkbox"/> Film                        |
| <input type="checkbox"/> Plates  | <input type="checkbox"/> Ink                         |
| <input type="checkbox"/> Silver  | <input type="checkbox"/> Steel                       |
| <input type="checkbox"/> Aluminium                                       | <input type="checkbox"/> Oil                         |
| <input type="checkbox"/> Pre-press chemicals                             | <input type="checkbox"/> Solvents                    |
| <input type="checkbox"/> Tyres   | <input type="checkbox"/> Batteries                   |

For those materials that you use but do not recycle – what actions can you take?

**The Product Design**

- Who is the person responsible for product design?

- Everyone
- No-one
- Name \_\_\_\_\_

- How have you ensured your current and new packaging is easy for re-use or recycling by:

|  |         |
|--|---------|
| Designers use design template (as per Code)                            | YES/ NO |
| Existing packaging has been reviewed and unnecessary packaging removed | YES/ NO |
| Products have recycling logo on  | YES/ NO |
| Re-use or recycle labels, glues and inks used                          | YES/ NO |
| Staff Education  | YES/ NO |
| Pallet configuration optimisation                                      | YES/ NO |
| Customer Education   | YES/ NO |

**Purchasing Materials**

- Have you ensured your current suppliers products that assist in the re-use or recycling of your product or create a market for recovered materials?

|   |         |
|---|---------|
| Environmental policy is integrated into purchasing policy   | YES/ NO |
| Suppliers are reviewed on their environmental practices and products.                                     | YES/ NO |
| Key suppliers work with the company to ensure improved innovation and environmental performance.          | YES/ NO |
| Purchasing policy encourages the use of recovered materials   | YES/ NO |
| Paperboard products purchased are of a high enough quality to contribute to the reuse and recycle effort. | YES/ NO |

- Whose responsibility is ensuring purchasing contributes to the reuse and recycling effort?

- Everyone
- No-one
- Name \_\_\_\_\_

## **Communication**

- Have you provided information or training on the Packaging Accord and the importance of re-use and recycling to:

|           |         |
|-----------|---------|
| Staff     | YES/ NO |
| Customers | YES/ NO |
| Suppliers | YES/ NO |

- Whose responsibility would communication be?
  - Everyone
  - No-one
  - Name \_\_\_\_\_

## **Benchmarking and Reporting**

- Which measure have you chosen to record the recover volume of paperboard and light weighting figures:
  - Mass tonnage to landfill versus recycling generated in the manufacturing process
  - Mass tonnage versus packaging output generated in the manufacturing process
  - Packaging output versus mass tonnage production or comparative measurement generated in the manufacturing process
  - Volume to landfill

## **What to do next:**

The information you have gained from completing this worksheet/Assessment will have identified areas where you have already developed policies and processes in place and have achieved good results towards meeting your responsibilities under the Packaging Accord. It will also have helped you to identify areas that need further work. These areas will be the ones you should focus on when you develop your company Code of Practice Action Plan. (You can use the attached form or develop your own).

**A copy of the Action Plan should be sent to NZPPA for inclusion in the Paper Sector reports to the Ministry for the Environment and the Packaging Council on the Packaging Accord.**

We trust that as you work on the areas identified your company will realise the many benefits that will eventuate from environmental sustainability practices.

As environmental standards are continuously changing, it is important that a program of continual improvement in environmental performance is adopted by organisations to stay in touch with environmental legislation and to take advantage of the benefits of improved environmental performance (i.e. savings in waste disposal costs and raw materials, improved company image, etc.).

NZPPA will continue to work with you, its members, the Packaging Council of New Zealand and the government to report on the progress that is made towards New Zealand's environmental sustainability by the paper sector.