

Designing Greener products: Sustainable Consumption at our Company March 30, 2010



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Johnson & Johnson

Agenda

- Developing more sustainable products
- Supplier requirements



World's most comprehensive and broadly based manufacturer of health care products, as well as a provider of related services, for the consumer, pharmaceutical, and medical devices and diagnostics markets.

- More than 250 operating companies
- Approximately 118,700 employees
- Operate in 57 countries
- 3 Segments: Pharmaceuticals, Medical Devices & Diagnostics, and Consumer
- 2009 Sales \$61.1 Billion



Products That Save & Improve Lives



Sustainability in the 1940's

“We must use our resources wisely, avoiding waste of both raw materials and scrap, while we seek substitutes for things already in short supply. We must employ replaceable materials where we can, must let forests restore themselves as we cut, must prevent loss and pollution of water, and must halt wasteful erosion of soil. ... Sound business demands their employment, just as it demands reduction of waste in a factory or store.” *[Or Forfeit Freedom, by Robert Wood Johnson, Doubleday & Company, Garden City, New York, 1947, pp. 37-38]*

Vision & Strategy

Healthy People, Healthy Planet, Healthy Business

Healthy Planet

EHS Standards

2010 Goals

*Healthy
People
Healthy Planet*
JOHNSON & JOHNSON





Product Stewardship Vision

What is J&J's product stewardship vision?

- Use of life cycle thinking
- Continuous improvement – greenER products
- Create business value by meeting customers needs



EARTHWARDS™: Process and Goals

EARTHWARDS™ is a process and a group of tools that can be used to systematically build greener more environmentally sustainable products.

The goals of EARTHWARDS™ are:

- Help business and development teams understand environmental impacts of the product using life cycle thinking
- Identify areas of opportunity to improve the environmental footprint
- Uncover opportunities for credible environmental claims (using FTC guidelines)

Materials/Ingredients

Chemical look up (DfE)
Material Use Reg Summary (DfE)
Watch list (DfE)
Gaia



Energy

Guides, checklists, best practices



Water

Guides, checklists, best practices



Compliance

C2P
DfE regulatory metrics
-Electronics
-Material use
-Battery



Waste

Guides, checklists, best practices



Life Cycle Thinking

Checklist, LCA light tool, examples



Packaging

Protocol (DfE)
Guide (DfE)
Plastic selection guide\
Compass



Recognition

Score Card
GreenER product catalog,
jnj.com



Innovation

Guides, best practices





EARTHWARDS™

The EARTHWARDS™ process uses life cycle thinking to improve the environmental performance of products in the following areas:



Energy



Materials/
Chemicals



Waste



Water



Packaging



Examples of Improvement Tools



EARTHWARDS™: Chemical Look Up Tool

[View Color Codes](#) | [View Watch List](#) | [View List Description](#) | [Exit Application](#)

Select whether to search by **Chemical Name** or **CAS Number**, and to perform a **partial** or **exact** match. Enter a portion of the chemical name or CAS number in the field and click the **Find** button. From the results list on the right, highlight the desired chemical and click the **Add** button. If the chemical name search is empty, click the **Enter** button to add the name to the table. Click the **Print** button to generate a printer-friendly version. Click the **Export** button to generate an Excel spreadsheet of your table. To exit the application properly, click the **Exit Application** link. **DO NOT REFRESH YOUR BROWSER.** Doing so will end your session and your information will be lost.

7440097 - Potassium

Chemical Name
 CAS Number
 Partial Match
 Exact Match

Records returned: 1

Chemical	CAS	Count of Entries	Banned Chemical	Known Human Carcinogens	Other Suspected Carcinogens	Watch List	CPC WW Ingredient Requirements	US: FIFRA	Malaysia: List of Pesticides	Ozone Depleting Chemical	Stockholm Convention on Persistent Organic Pollutants	EU REACH: Substances of Very High Concern (SVHC)	China REACH	EU: Marketing And Use of Dangerous Substances Directive 76/769/EEC	EU REACH Annex XVII	Hong Kong: Dangerous Substances Regulations	Taiwan: Hazardous and Harmful Substances	J Sp Cf Sut
Benzene	71432	20	x	x										x	x	x	x	
water		0																
Potassium	7440097	5															x	
Total Hits		25																

Turn on color coding
 Turn off color coding

Color Codes

- Banned: Do not use
- Use only if nothing else can be used
- Substitute yellow or green chemical if possible
- Use green chemical or use below threshold if possible
- OK



LifeScan Carrying Case

Environmental Improvements:

- Removed latex elastic bands and replaced with lycra
- PVC materials on the cases were substituted with Thermoplastic Polyurethane (TPU), a safer alternative
- Since then, they have added eight more RoHS compliant meters to their product line. (RoHS is the directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment).



PACKAGING PROTOCOL

1. Are any materials banned in any countries?

About this Document

The Packaging Protocol is a checklist to help designers ensure and document compliance with applicable packaging requirements. Filling out the Protocol will also assist you in creating an Essential Requirements Technical File.

The Protocol contains links to detailed explanations in the Packaging Reference Guide. For more detail on individual packaging requirements as you complete the Protocol, please refer to the appropriate section of the Packaging Reference Guide.

The Protocol is now a standalone Excel File (.xls, 429 KB)(previous versions were embedded in the Excel DfE Tool).

Instructions

Download a copy and save it to your local drive. The Packaging Protocol will be in Read-Only until it is saved to your local drive.

Note: Macros must be enabled for the Protocol to work properly. When the Protocol is downloaded and opened in Excel 2007, you may see a Security Warning that "Macros have been disabled." Macros must be enabled each time you open the Protocol. To enable macros, click the "Options..." button adjacent to the Security Warning, choose "Enable this content," then click "OK." After you have enabled macros, click on the Add-Ins tab in the Excel toolbar to see the Packaging Protocol navigation toolbar.

New users should read the Welcome Page carefully.

Resources to help you fill out the Protocol

The following is a list of questions in the protocol, with links to Guidebook Sections that download a copy and keep this page open as you work through the protocol.

Question
1. Are any materials banned in any of the countries identified in Section 2.1.
2a. Are heavy metals and hazardous substance requirements met?
2b. Are Certificates of Compliance with heavy metals, hazardous substance, and wood treated each supplier?
3a. Are you using packaging that contains polyvinyl chloride (PVC)?
3b. If so, have you evaluated its removal according to the HP 2010 Paper & Packaging Goal in consideration of PVC restrictions and regulatory trends?
4. Which recovery route standard(s) does the component or functional unit meet? Mark all that will be disposed of together must meet the standard for the same recovery route).
5a. Of the critical areas listed below and described in Section 2.2.2.3, which one is the critical eliminating or further reducing each component? (For each component, identify the appropriate)
5b. This question only applies to products to be sold in EU & other countries where the CEN is required: Have you identified a test, study or specification that demonstrates each limitation

6a. Have you considered opportunities to make components reusable, returnable or refillable?	See Section 2.2.2.3
6b. Are components reusable, refillable, or returnable and are support systems in place or developing?	See Section 2.2.2.3
6c. If the packaging system includes reusable, returnable or refillable components, is there an infrastructure for reuse in all markets in which reuse is claimed?	See Section 2.2.2.3
1. In all markets? 2. In the CEN countries requiring Technical Files per EN 13429?	
6d. If the packaging system includes reusable, returnable or refillable components, are they specifically identified as reusable?	
7.1. Essential Requirements (ER) Technical File completed, if required?	<ul style="list-style-type: none"> The Technical File form is included in a separate tab in the Packaging Protocol (.xls version, download above). A sample Essential Requirement Technical File is provided in Section 3.3.3. For general info on the Essential Requirements: See Section 2.2.2.2
8. This question applies only to products marketed to consumers (could include over the counter pharmaceuticals): If the product is to be marketed in applicable markets, e.g., Taiwan, Australia, Canada, Japan, New Zealand, South Korea, are the free space requirements met for each country?	<p>See Section 2.2.3</p> <p>A. For South Korea: See 2.2.3.6. B. For Australia: See 2.2.3.1. C. For Canada: See 2.2.3.2. D. For New Zealand: See 2.2.3.5. E. For Taiwan: See 2.2.3.7. F. For Japan (applies only to cosmetics): See 2.2.3.4.</p>
9. This question applies only to products marketed to consumers (this may include pharmaceuticals): Markets including South Korea, Taiwan have specific packaging layer requirements. If the product is to be introduced in applicable markets, e.g., Taiwan, South Korea, are the packaging layer requirements met?	See Section 2.2.3.6
10a. This question applies only to rigid plastic containers: Does the container comply with applicable Rigid Plastic Container laws (requiring recycled content/reuse/source reduction)?	See Section 2.2.4
10b. Do you have all the necessary documentation to certify compliance, including written certification of recycled content from each container supplier?	See Section 2.2.4
11a. Is the packaging system and/or its components subject to fees?	See Section 2.3 for general fee information See Section 3.3.4 for a matrix of countries with fees
11b. Is it feasible to use a material composition that will incur lower fees?	See Section 2.3.3 for an explanation of fee differentiation
12a. Is appropriate environmental labeling employed on the package or label per Section 2.4?	See Section 2.4
12b. If the environmental labeling indicates recycled content, is certification of the content on file or available from each supplier?	See Section 2.4.2.6
13. If an environmental claim has been used, has its meaning for each component been properly qualified (in print, alongside the claim)?	See Section 2.4.3 and Section 2.4.3.1
14. Are you using paper packaging that contains post consumer recycled content (>30%) and or certified fiber content (Forest Stewardship Council certification or equivalent) according to the HP 2010 Goals.	See Best Practices for Packaging, Section 1 - 1.1 Click to see the HP 2010 Goals Implementation Guide
15. Have you considered the impact of emerging environmental issues on the packaging?	See Best Practices Section 2 Click to see a listing of emerging issues WW Environmental Affairs is tracking
16. Have you evaluated the "Design Guide by Material Type" for each packaging component to make the best choices and avoid using problematic materials?	See Best Practices Section 3 and Section 3.1

LifeScan Ultra Test Strips

Environmental Improvements:

- Antimony trioxide, a chemical on many materials of concern lists, including proposition 65, has been removed from all electrochemical diabetes test strips (replaced with Melinex)
- All of the electrochemical strip cartons (55 million plus cartons annually) are sourced from third-party certified sustainable forests



earthwards scorecard

Pre-requisites		Achieved
	Know materials, ingredients in your product	
	Identify and plan to address J&J Watch List materials	
	Know where product and packaging end up after use	
	Know whether agricultural or mined ingredients come from culturally or environmentally sensitive regions	
Complete life cycle screen to <i>identify priority goals</i> for the product (see separate screening questions)		
Goals: 10% improvement		
Materials	1 Meet consumer need with less material <i>or</i>	
	2 Use more environmentally preferred material (see list) <i>or</i>	
Packaging	3 Meet consumer need with less packaging <i>or</i>	
	4 Use more environmentally preferred packaging material (see list) <i>or</i>	
Energy	5 Make product more energy efficient in use <i>or</i>	
	6 Make manufacturing or distribution more energy efficient <i>or</i>	
Water	7 Make product more water efficient in use <i>or</i>	
	8 Make manufacturing more water efficient <i>or</i>	
Waste	9 Make product with less waste during manufacturing <i>or</i>	
	10 Recover more product, after use, for reuse or recycling	
Results	Achieved all pre-requisites + three other goals?	



Earthwards: Creating Greener Products

- We have removed 1,024 tons of PVC from our products
- Removal of Mercury (Hg) preservative from blood donor screening
- Green chemistry in Active Pharmaceutical Ingredient Synthesis:
 - AIDs Rx Intelence process improved
 - 60% reduction in the use of methylene chloride
 - 540,000 liters/yr waste eliminated
- ASP Sterilizer does not use ethylene oxide



Supplier Standards

Global Standards for External Manufacturers

- GUIDING PRINCIPLES - apply to all J&J companies,

Johnson & Johnson

STANDARDS FOR RESPONSIBLE EXTERNAL MANUFACTURING



GUIDING PRINCIPLES

The Johnson & Johnson Family of Companies (Johnson & Johnson) holds itself to high standards of ethical behavior, product quality and social responsibility. These standards reflect our internal values and the expectations of external stakeholders, such as customers, regulators, investors and the public. Furthermore, we find business relationships are more productive and effective when they are built on trust, mutual respect and common values. As such, Johnson & Johnson seeks relationships with external manufacturers of finished goods and active pharmaceutical ingredients (herein referred to as external manufacturing partners) who share a common commitment to:



- 1) Comply with applicable legal requirements,
- 2) Behave ethically and with integrity,
- 3) Integrate quality into business processes,
- 4) Treat people with dignity and respect,
- 5) Promote the safety, health and well-being of employees,
- 6) Operate in an environmentally responsible manner and,
- 7) Implement management systems to ensure ongoing performance and continual improvement.

We believe when these seven guiding principles are followed, business and communities realize economic, social and environmental benefits. We developed the following standards to assist us with selecting partners who operate in a manner consistent with these guiding principles and to assist our external manufacturing partners with understanding our expectations. We developed these standards mindful of the different legal and cultural environments in which our external manufacturing partners operate and internationally recognized expectations for business ethics, product quality, labor and employment, health and safety and the environment. Johnson & Johnson assesses conformance to these standards and, when necessary, works with its external manufacturing partners to identify agreed upon actions and schedules in order to achieve improvement. Johnson & Johnson considers progress in meeting these standards and ongoing performance in its sourcing decisions.

Global Standards for External Manufacturers

‘Comply with applicable legal requirements’

‘Behave ethically and with integrity’



STANDARDS

1.) Legal Compliance
 Johnson & Johnson's external manufacturing partners are expected to operate in compliance with all applicable legal requirements related to business conduct, product quality, labor and employment practices, health and safety and environmental protection. They are expected to obtain all applicable permits and to operate in accordance with permit limitations and requirements at all times.

2.) Ethics & Business Conduct
 Johnson & Johnson's external manufacturing partners are expected to behave ethically and with integrity in all business transactions. As such, they shall:

- ▶ Uphold standards for fair business practices including accurate and truthful advertising, fair competition, and antitrust.
- ▶ Prohibit the exchange of privileges, waiver of penalties or fines, or special benefits through payment of bribes, illegal political contributions, or other illicit payments or methods.
- ▶ Safeguard against improper use and disclosure of confidential or sensitive information including intellectual property, pricing, employee and patient information.
- ▶ Maintain an environment of safety and innovation.
- ▶ Treat any animals used in research in a humane manner and follow the principles of care and reduction of laboratory animals.

STANDARDS

3.) Product Quality
 Johnson & Johnson's external manufacturing partners are expected to meet agreed upon quality requirements in order to provide goods and services that consistently meet required specifications and customers' needs, perform as intended and are safe for their intended use. These requirements shall be defined in a Quality Agreement and product specifications agreed to by Johnson & Johnson and its external manufacturing partner.

4.) Labor & Employment
 Johnson & Johnson's external manufacturing partners are expected to treat people with dignity and respect. As such, they shall:

- ▶ Not use forced, bonded, indentured or involuntary prison labor.
- ▶ Not discriminate against or harass an individual on the basis of race, color, religion, gender, pregnancy, HIV status, sexual orientation, national origin, age, disability, veteran's status, marital status, or political affiliation.
- ▶ Not treat or threaten to treat an individual harshly or inhumanely. Harsh or inhumane treatment includes sexual harassment or abuse, corporal punishment, coercion or verbal abuse.
- ▶ Avoid unsafe working conditions by providing sufficient rest periods during the workday and honor agreed upon days off from work and maximum working hours.
- ▶ Pay wages for all hours worked and clearly communicate the wages that employees are to be paid to them in advance of commencing work. Communicate to all employees if overtime is required and the wages to be paid for such overtime.
- ▶ Comply with Johnson & Johnson's Employment of Young Persons Policy and not employ anyone under the age of 18 and not employ anyone under the age of 18 to perform hazardous work.
- ▶ Respect workers' rights to make informed decisions free of coercion, threat of reprisal or unlawful interference regarding their desire to join or not join organizations.
- ▶ Respect worker's rights to bargain collectively without unlawful interference.



‘Integrate quality into business processes’

‘Treat people with dignity and respect’

Global Standards for External Manufacturers



STANDARDS

5.) Employee Health & Safety

Johnson & Johnson's external manufacturing partners are expected to maintain the workplace and any living quarters used to house employees in a clean, orderly and safe manner.

- Implement programs to prevent employee exposures to workplace hazards including chemical, biological, and physical hazards.
- Implement programs to manage processes safely and prevent catastrophic events.
- Identify potential emergency situations, implement preventative measures, and be prepared to execute emergency response procedures.

6.) Environmental Protection

Johnson & Johnson's external manufacturing partners are expected to operate in an environmentally responsible manner.

- Work to reduce the amount of waste, including natural resources, waste generation, and disposal.
- Prevent accidental releases to the environment and adjacent community.
- Implement programs to restrict or ban hazardous substances.



STANDARDS

7.) Management Systems

Johnson & Johnson's external manufacturing partners are expected to manage their activities systematically in order to meet the operating standards set forth in this document and to improve their operations continually. As such, they shall:

- Demonstrate top management commitment through policies, objectives, and formal processes for management review.
- Implement processes to control documents and records.
- Provide resources, including competent personnel and appropriate infrastructure, to ensure conformance to these standards.
- Implement processes to control the production of Johnson & Johnson products, manage change effectively and ensure customer requirements are satisfied.
- Implement processes to manage nonconformity and emergency situations related to products, processes and these standards, including the reporting of such events to applicable regulatory authorities and Johnson & Johnson as appropriate.
- Identify and implement improvement actions, including effective complaint investigation, internal audit and corrective action processes.



‘Implement management systems to ensure ongoing performance and continual improvement.’

‘Promote the safety, health and well-being of employees’

‘Operate in an environmentally responsible manner’

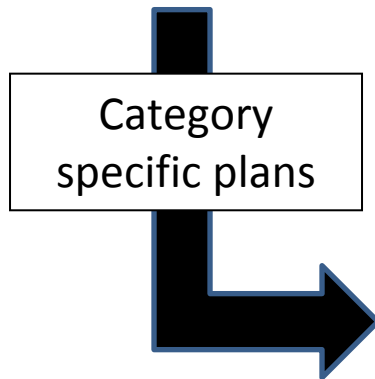
J&J's Global Standards for External Manufacturers

Program Elements Required for Implementation

- ✓ Communication of Expectations
- ✓ Prioritization/Risk Assessment
- ✓ Performance Assessment/Audit
- ✓ On-going Monitoring
- ✓ Incident Reporting
- ✓ Roles & Responsibilities
- ✓ Recordkeeping

Sustainable Procurement Efforts

- Procurement Category Focus
 - Chemical Suppliers, Metal Suppliers, Plastics Suppliers, Packaging Suppliers, Logistics, etc.

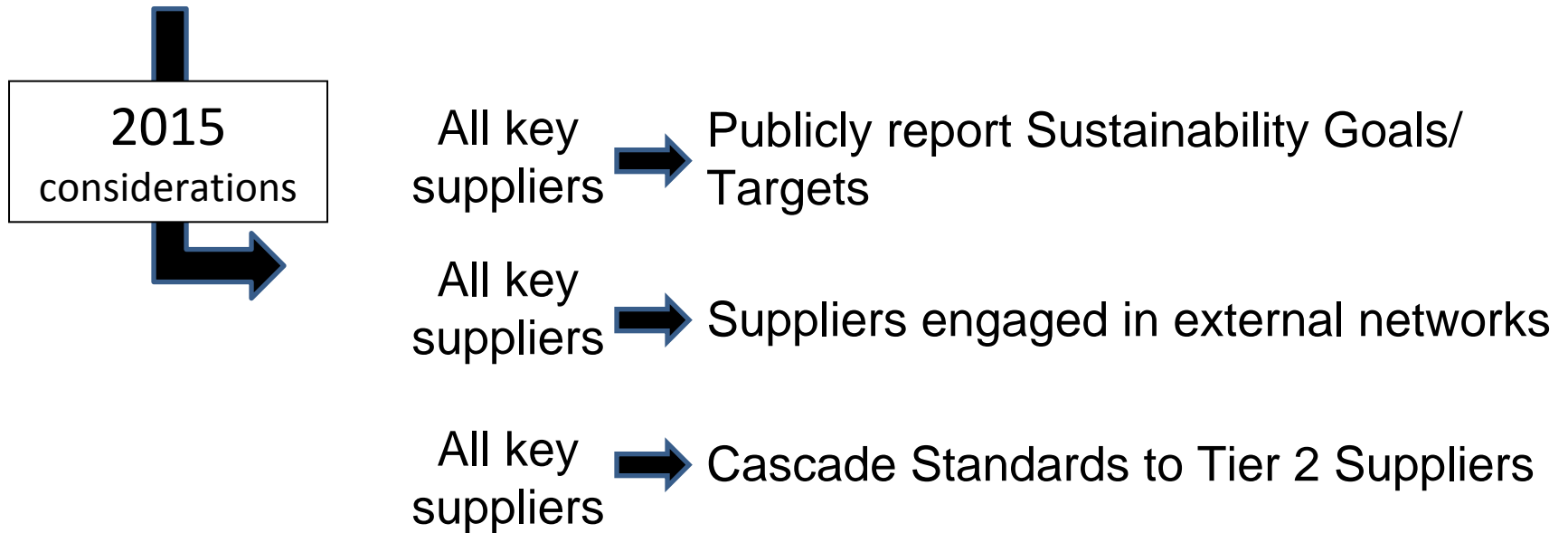


Packaging

- **Category demographics**
 - Total spend ~\$X Billion
 - Consumer 2/3; Pharm 1/6; MDD 1/6
 - Total Suppliers ~2,000
- **Key Material issues - Sustainability**
 - Environment – Forest Products Management
 - Environment - Energy Use/Carbon Footprint
- **External Partners**
 - EPA GSN
 - CDP
 - WWF-North America Forest + Trade Network
 - Wal-Mart - SVN
- **Action Plan**
 - Engage key suppliers in CDP
 - Develop category specific RFP questions/integrate wood-products questionnaire
 - Enhance data collection processes for Annual Reporting and WWF
 - Education + Training (known, legal + certified sources)
- **2009 Goals/Objectives**
 - 75% of participating suppliers complete CDP Supply Chain questionnaire
 - 100% known + legal sources
 - Increase Certified %
- **2012 & 2015 Objectives**
 - TBD

Future of J&J's Efforts

- Procurement Category Focus
 - Chemical Suppliers, Metal Suppliers, Plastics Suppliers, Packaging Suppliers, Logistics, etc.



Designing Greener Products

THANK YOU!



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