SUSTAINABLE SUPPLY CHAIN
AT BD

NJDEP
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Who is BD?

- **FORTUNE 500** company (#332)
- Locations in **more than 50 countries**
- Nearly **30,000 associates** worldwide
- Serves healthcare institutions, life science researchers, clinical laboratories and the general public
- Sells a broad range of medical supplies and services, devices, laboratory equipment and diagnostic products
FY 2013 Revenues / Segments

$8.054

Revenue (billions of dollars)

BD Medical
- BD Nexiva™ Closed IV Catheter System
- BD™ Syringes
- BD™ Pen Needles

BD Diagnostics
- BD GeneOhm™ MRSA Assay
- BD Vacutainer® Push Button Blood Collection Set
- BD Eclipse® Blood Collection Needle

BD Biosciences
- BD Influx™ Flow Cytometry System
- BD FACSCount™ System
- BD Advanced Bioprocessing Cell Culture Media Supplements
Meeting unmet health needs is our core mission. All other operations and activities exist so BD can fulfill this fundamental charge as effectively as possible. Our history testifies to our dedicated pursuit of this shared commitment with our business and stakeholders.
PROTECTING THE ENVIRONMENT

- Sustainable Operations
- Product Stewardship
- Sustainable Products and Packaging
- Materials of Concern
- End-of-Use Management
- Addressing Climate Change Impacts
- Reducing Environmental Impacts from Manufacturing
- Supply Chain Stewardship

The Office of Global Sustainability
BD 2015 Sustainability Targets

- Reduce energy consumption from operations by 30%
- Increase renewable energy use to 25%*
- Reduce water consumption by 15%
- Reduce hazardous waste generation by 10%
- Reduce non-hazardous waste generation by 15%

Progress Against Targets (Status in FY 2013, from FY 2008 baseline)

- Reduced by 15%
- 32% of total*
- Reduced by 29%
- Reduced by 48%
- Reduced by 15%

* Based on absolute data, not normalized.

All performance data normalized to cost of goods sold from 2008 baseline year, unless otherwise stated.
Upstream Supply Chain Activities
BD Expectations for Suppliers

• BD Expectations for Suppliers available on the www.BD.com website in 12 languages
• First published in 2009, revised yearly
• Specific standards for suppliers regarding
  – Social Responsibility
  – Environmental Stewardship
  – Ethical Practices
  – Governance
• Referenced in all contract documents (RFP, PO, Agreements)
• Verification of compliance based on risk based analysis
  – Audits at suppliers that could pose a risk of non-compliance
  – Corrective action and continued monitoring where necessary
BD Environmentally Preferable Procurement (EPP) Principles

- **Internal BD Standard** issued in 2012
- Standard principles for **specifying and buying** environmentally preferable goods and services
  - Recycled content
  - Product life cycle – end of life (reuse, recycle, take back)
  - Minimal resource use: materials, energy, water, packaging, etc
  - Reduce/eliminate waste, emissions, use of HazMat, MOCs
  - Transport optimized
  - Measure track and disclose resource use and emissions
Procurement Sustainability Summits

- 5-8 suppliers meet at a BD site
- Discuss approach to sustainability of all in attendance, including BD
- Brainstorm sustainability project ideas

Transportation Participants:
Small Business/Supplier Diversity

• Working to increase opportunities to include **small/diverse suppliers**
  – In the IIGs of all sourcing associates
  – Incorporated into sourcing strategy work
  – Outreach through conferences, speaking engagements and local groups such as SBA/PTAC

• **Increase visibility of current suppliers**
  – Small Business
  – Women Owned
  – Minority Owned
  – Small Disadvantaged Businesses
  – HUBZone Businesses
  – Veteran Owned Businesses
  – Service Disabled Veteran Owned Businesses
Other Procurement activities

• **Value Formulas** to quantify suppliers’ contribution to
  – Reducing BDs carbon footprint
  – Protecting BDs reputation

• **Sustainability Award**
  – Recognize suppliers contributing to Sustainability
  – Also CSR component in all supplier awards
Supply Chain Challenges

- **Regulatory Reporting Requirements** – such as REACH, RoHS, GPL, WEEE require supplier transparency

- **California Supply Chain Transparency Act** (SB657) – addresses the risks of slavery and human trafficking in the direct supply chain.

- **Conflict Minerals** – the Dodd Frank Bill (HR4173) requires annual reports to the SEC disclosing whether products contain minerals (Tin, tungsten, tantalum and gold) from Congo or adjacent countries.

- **Customer Requirements** – PGH Standardized Environmental Questions for Medical Products
Downstream Supply Chain Activities
EPA Smart Way Transport Partnership

• BD is participating as a “Shipper”
• 94% of our carriers are in the program
• Uses a continuous improvement approach
PARTNER-1: Temse to the NHS Depots in the UK eliminated half filled trucks

- **Fill rates improved** to 85% in 2013
- Reduction of 80,000 km – a reduction in carbon emission of 23 metric tons CO2

PARTNER-1: Fraga -> Temse

- 800 shipments/year switched from Truck to Rail
- Reduction of 1,000,000 km - a reduction in carbon emission of 297 metric tons CO2

PARTNER-1: Plymouth -> Temse

- 1500 shipments per year: **partially road, partially short-sea**
- Reduction of 300,000 km - a reduction in carbon emission of 87 metric tons CO2
Other Initiatives

- **COMPASS**, BD’s anti-corruption program, focuses on the ethics and procedures that ensure compliance everywhere we operate. The program assists BD to “win business the right way.”

- **ISE Supply Chain Roundtable Series**

- **Global Transport Team**

- **Distributor sustainability sessions** – VWR, Henry Schein (SW, Cold Chain)
Other Initiatives

• Partner with Rutgers University, Pennsylvania State University and Rider University to identify and hire top graduates interested in supply chains. Interns in the SCDP program spend six months in five rotations among departments.

• BD minimizes our contribution to climate change by reducing our greenhouse-gas emissions (GHG) through actively managing energy and water consumption, emissions and waste generation, and transportation efficiency. We have been a longtime responder to the Carbon Disclosure Project (CDP).
Carbon Impact of Transport

Transport accounts for 23% of global CO₂ emissions from fossil fuels.

- Ships: 2x
- Trains: 6x
- Planes: 47x

10 Grams CO₂ per ton per kilometer

Global CO₂ from transport will grow by 40% by 2030.
Supply Chain Operations
Checklist for DC’s and Warehouses

- Energy
- Renewable Energy
- Water
- Waste
- Carbon Footprint
- Associate Engagement
Energy, Emissions, Waste Best Practices for DC’s and Warehouses

– Energy Procurement
– Lighting
– HVAC
– Motors & Pumps
– Electrical Equipment
– Fork trucks, Material Handling
Warehouse Energy Audits

– Conducted audit at Oakville DC - 41% energy reduction through **lighting upgrade**
– Teach Audit Techniques, **provide instruments**
– Work with site personnel or **maintenance suppliers** focusing on lighting and HVAC
– “**Virtual Energy Audit**” Data review/opportunity analysis being piloted
Data Collection and Metrics

**Scorecard** for all DCs over 50,000 sq. ft.

- Direct Energy
- Indirect Energy
- Non Hazardous Waste
- Regulated Waste
- Water
**EAST COAST DC – FOUR OAKS, NC** (OPENED 8/2011)

- BD’s *first* Leadership in Energy and Environmental Design (LEED) Gold certified Distribution Center.

*720,000 SQ FT Facility*
SUSTAINABLE DESIGN ELEMENTS

- **Cool Roof**: A light-reflecting roof surface that keeps internal temperatures down and lowers utility costs.
- **Skylights**: that use solar-powered GPS technology and mirrors to track the sun and channel the light into the building
- **Intelligent Lighting**: Lights in all office areas and the warehouse are equipped with motion sensors / Exterior lights are connected to photo sensors that constantly adjust to seasonal light changes.
- **Idle Policy**: Carriers requiring >3 minutes than for Loading / Unloading are required to shut their engine off.
- **Regenerative forklifts**: State-of-the-art forklift fleet harnesses residual energy from the lowering motion and returns it to the battery.
BD’s distribution center in Four Oaks, North Carolina, is generating nearly one megawatt of solar electricity from four acres of rooftop photovoltaic panels.
Achievements in Renewable Energy

• BD, an **EPA Green Power Partner**, has been awarded membership to the **Green Power Leadership Club** (2011, 2012 and 2013)

• Green Power Partnership Rankings
  - BD ranks **#12** on the Fortune 500 list
  - BD ranks **#17** on the National Top 50 List

• In the US we buy RECs to offset **83.9%** of our electricity with wind sources
REPORTING ON SUSTAINABILITY AT BD

• Covers BD’s approach and performance in three key areas:
  – Economic
  – Environmental
  – Social

• BD’s 2013 Sustainability Report resides on BD.com
  – http://www.bd.com/sustainability