....the Rest of the REACH and RoHS Story

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Introduction

- 38 years of environmental experience
- 24 years of corporate environmental management
  - Digital Equipment – High Tech
  - Polaroid – Chemicals and Consumer Products
- 8 years+ in product stewardship and international environment requirements
Agenda

- Build on Anita’s presentation
- Step back and examine the paradigm shift that has occurred
- Talk about product environmental regulations
- Discuss where this is taking us and future actions
RoHS and REACH

- The Restriction of Hazardous Substances has had a profound impact on electronics design and material content.
- RoHS is being revised as we speak.
- Registration, Evaluation and Authorization of Chemicals - REACH will have an even more profound impact.
The Product, not the Plant – the RoHS example

- Shift from production to the product
- RoHS is a sibling Directive with the WEEE Directive (Waste Electronics and Electrical Equipment)
- Builds on Extended Producer Responsibility
- Started with 6 but now 7 substances in a wide but “defined” category of electronic products
- Eliminates the toxics in the design
RoHS Became a De Facto International Standard

- Even though a EU requirement, RoHS brought about a major change in the supply chain
- Parts manufacturers were not going to keep two versions of a part and
- If they did, the old part became very costly
- Others picked up on it – China and CA
**WEEE -**

- The producer had to internalize the cost of end of life management of the product.
- This did not mean the customer does not pay.
- In the US, electronics take back has became a state waste management issue.
**WEEE and RoHS Revisions (a)**

- The process is in place
- The Directives were published at the beginning of 2003 (finalized in December of 2002)
- There is a 5 year review cycle
- There are significant proposed changes for both of these Directives
RoHS and WEEE Revision (b)

- 46 possible new RoHS Restricted Substances
- Elimination of many exemptions
- Broader definitions that will pull in more products
- Higher collection and recovery rates
- Greater business impact, lower environmental impact
The Product Focus

- From WEEE and RoHS you should conclude that we are working with a moving target.
- There are other important product environmental requirements – a few:
  - Packaging
  - Batteries
  - Energy-using Products
  - End of Life Vehicles
  - REACH
What is the Game Plan?

- The producer is responsible
- Reduce
  - Materials
  - Toxics
  - Energy
- Creating a smaller environmental footprint (includes Climate Change)
- Conserve resources
End of Life Vehicles Directive

- The EU is a big market
- ELV restricted metals
  - Mercury
  - Hexavalent Chrome
  - Lead
  - Cadmium
- Every auto part today meets the ELV directive even though only 40% of the parts are sold in the EU
Packaging

- Major component of Municipal Trash
- Redesign created significant savings for companies
- Toxics in packaging a concern
- US CONEG packaging regulations in 19 States
- US Toxics in Packaging Clearing House
**Batteries**

- A very important part of today’s technology
- The trade off of reduced toxics to easy and safe disposal
- By the way - all batteries are covered in the EU battery takeback program
EU Energy-using Products

- More than just electronics
- Adds an important concept – eco design
- Creates product category standards which become part of the CE mark (equivalent to our UL label)
- Integrates environment with product safety
REACH

- Important for the manufacturer of the chemical (substance)
- Equally important for the user
- REACH impacts chemicals in products
- Substances of Very High Concern – SVHC
- SVHCs require information and planning
REACH SVHCs

- SVHCs will be the black list of chemicals non grata
- For candidate SVHCs, you need to know the threshold
- You may have to provide information when listed
- If/when restricted or authorized for use only as directed.
Echos of EPCRA

Providing information is a great driver for change
Wide Impact of REACH

- There are exemptions, meaning you are regulated by something else
- Most businesses fail to recognize the future impact
- SVHCs will be replaced with safer substitutes
- Chemical concerns will get pulled into green purchasing requirements
Circling Back to WEEE and RoHS

- Started with the fast growing, rapidly changing electronic products market
- Fewer toxic chemicals in products
- Less exposure during use
- Less impact at end of life
The 0.1% weight/weight Question

- Thresholds become very important
- Both are 0.1%
- In RoHS it is for the homogeneous material
- For REACH is for the sold product
- There is strong debate whether REACH should be based on homogeneous material
Compliance and Enforcement

- US and the EU are different in their approaches
- The biggest court case was over Decca; the Commission (and industry) lost
- Enforcement in the EU is not going to make consultants rich
- There is a long term view
- Use market forces
Business Impact

- Material restrictions are worked into purchasing contracts
- Greener purchasing
- Using the Supply Chain to achieve your reduction objectives
- The Supply Chain may be the only way to manage
- Competitive issue
**EPEAT**

- Electronic Product Environmental Assessment Tool
- EPEAT is multi stakeholder, EPA IEEE effort
- Take a look at the website, [www.epeat.net](http://www.epeat.net)
- Blends it all together in a product rating
Keep the Faith

 الإسرائيلית Environmental Requirements are not focused on the manufacturing plant.

Environmental design will have a beneficial impact on manufacturing by reducing impacts.
The Product is the Focus

- While not our normal mode of operation, concern about products is not unique to the EU
- Especially a concern for our disposable, rapidly changing consumer market
- Also concern that we are talking about billions of pounds or tons
In Closing

- Change has begun
- Product Stewardship will evolve to be a business issue
- Just as an environmental review is now done to assess the environmental liabilities, a parcel of property may have
- The environmental product’s fingerprint will be important for competitive and liability reasons
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Thank You For Your Attention

Q&A