

Being a Strategic EHS Risk Manager – Addressing Regulatory and Non-Regulatory EHS Risk

An International Perspective – responding to EU regulations - WEEE/RoHS Case Study

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Responsibility

Invensys plc



- **UK listed automation and controls group**
- **Formed as merger of BTR and Siebe in 1999**

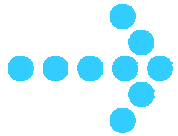
	1999	2006
Sales – USD (at 1.75 to GBP)	15.8 billion	4.9 billion
Employees	120,000	30,000
Business Groups	20	6
Manufacturing Sites - Total	170	53
Manufacturing Sites - EU	66	22
Countries (manufacturing) - Total	26	16
Countries (manufacturing) - EU	13	8



WEEE/RoHS - Timeline



- Initial assessment, 2001: will be a significant issue for Invensys
- Historical "take-back" estimated could cost > \$ 100 million
- Lobbying activity, 2002, focused on Article 8 : *"For WEEE products on the market before the entry into force of this Directive, the financing of the costs of management shall be provided for by producers."*



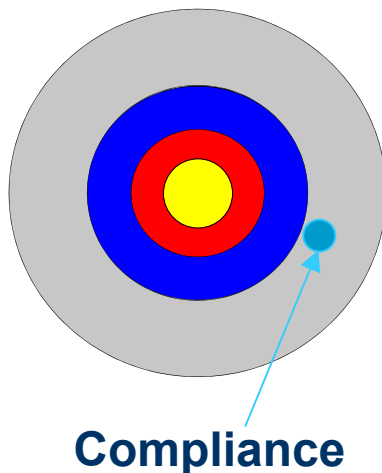
EHS Regulatory Response

A traditional 'Tactical/Reactive' approach

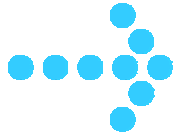
Deal with at operating level – “they know best”

Narrow focus on ensuring compliance - “minimum is to comply”

Corporate would audit compliance – “governance role”



Might cross radar scope of corporate
at compliance level



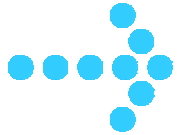
BUTfor an electronics company, WEEE/RoHS not just a local problem

Strategic – affecting many key customer relationships and exposure to multiple businesses

Opportunity – new product innovation enhancing customer relations

Threats

- > Lost orders**
- > Reputational damage, local and global**
- > Product Recalls**
- > Fines**
- > Production imbalances as some countries not requiring change**



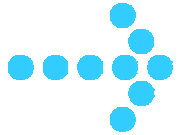
Thus, WEEE/RoHS – Strategic Actions:

Corporate Exposure Assessment – Initial focus on estimating lifecycle cost of ‘historic’ take-back proposals

Lobbying — alongside industry groups with UK government to reduce/delay impact (now June 2006). More time to re-engineer.

Develop and implement consistent business processes — flow charts; annual questionnaire returns; support from legal function

Independent check - WEEE/RoHS readiness review in December 2005



Strategic – proactive – Corporate led

Stage 1 : Initial Assessment

- Interviewed 15 managers across 5 business groups to understand level of awareness
- Estimated potential liability for historical waste – question set to key sites

Stage 2 : Detailed Evaluation and Control

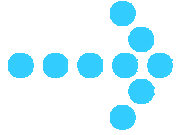
- Constructed guidance and flow charts to enable businesses to assess which product lines affected
- Distributed to EU business units
- Added WEEE and RoHS questions to annual environmental performance questionnaire to monitor readiness (ensured external verification and 100% completion by year end)
- Businesses responsible for individual action tracking, monitored through legal function
- Consistent response to customer questionnaires

Snapshots of monitoring readiness data on WEEE/RoHS

ROHS 2005/06

		Identified RoHS substances?	
		2005	2004
Business			
465	APV DE Artern	No	No
466	APV DE Unna	No	No
325	APV DK Kolding	No	No
335	APV DK Silkeborg	No	No

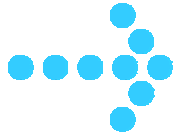
United Kingdom	268	EURO UK Farady CI	Yes	Yes	Moving toward a lead-free process.
Brazil	417	INVCON ABS BR Sao Paulo	Yes	Yes	Following Invensys Controls RoHS Implementation Strategy...
United States	388	INVCON ABS US Rockford	Yes	Yes	IBS HVAC control products fall into product category 9 for monitoring and control instruments, which are outside the scope of the RoHS Directive.
Australia	433	INVCON Reg AU Sydney	Yes	No	Working to eliminate the substances in the products and materials we purchase using the Invensys Controls RoHS initiative
Brazil	415	INVCON Reg BR Caxius	Yes	Yes	Following Invensys Controls RoHS Implementation Strategy.
Brazil	416	INVCON Reg BR Manaus	No	No	-
Brazil	419	INVCON Reg BR Vacaria	Yes	Yes	Following the Invensys Controls RoHS Implementation Strategy
China	437	INVCON Reg CN Changzhou	Yes	Yes	we are preparing for install new acid washing line instead of the use of CrO3.
China	439	INVCON Reg CN Qingdao	Yes	Yes	Replace the Zn-plating technology with Cr III in stead of Cr VI; To use the lead-free soldering tin; Meeting suppliers to instruct the suppliers the ROHS requirements and ask all the suppliers to sign the commitment and provide RoHS test
China	440	INVCON Reg CN Weihai	Yes	Yes	Replace the Zn-plating technology with Cr III in stead of Cr VI; To use the lead-free soldering tin; Meeting suppliers to instruct the suppliers the ROHS requirements and ask all the suppliers to sign the commitment and provide RoHS test



Sometimes matters fall through the cracks

5 August 2004

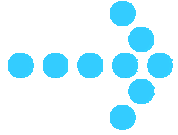
- Supplier of thermistors advises one of their resins contains Penta-BDPE
- Polybrominated diphenyl ethers was one of 6 substances to be eliminated from use in products sold under RoHS
- UK regulations banning the use of Penta-PDBE in products sold come into force 15 August 2004
- These regulations missed by our “radar screen”
- Thermistors used in a sensing device
- Two suppliers of thermistors, only one using resin with Penta-BDPE but no means of knowing which sensors had which thermistor installed
- All stockists told to return unsold sensors for destruction
- Production focus on manufacturing with ‘good’ thermistors to replace stocks



Issues still remain, particularly in the supply chain

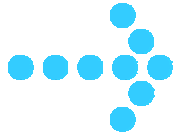
February 2006

- **1st January**
 - > **business unit issues letter to all customers advising our products are RoHS compliant, in accordance with plan**
- **Early February alerted to the fact that the paint used in a spring, supplied out of Asia, incorporated in a small controller contains lead**
- **Quantity of lead would make product non-compliant with RoHS in July 2006**
- **Contacted all customers who received the controllers since letters went out and negotiated replacements on a 'case-by-case' basis**

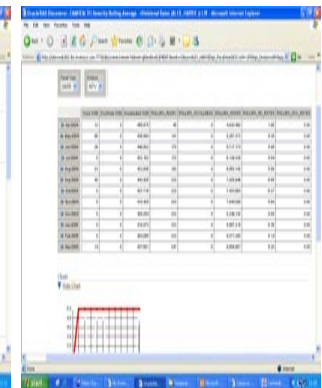
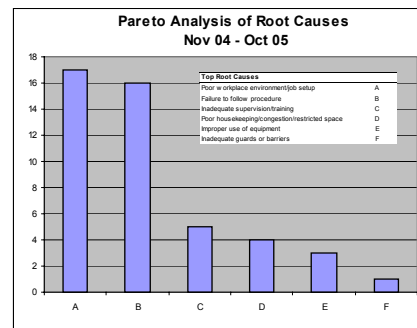
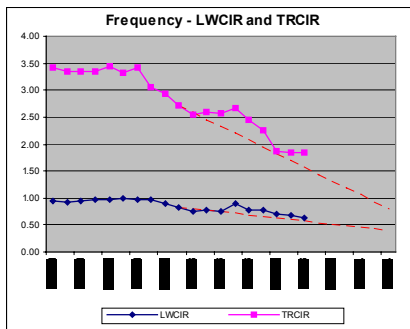
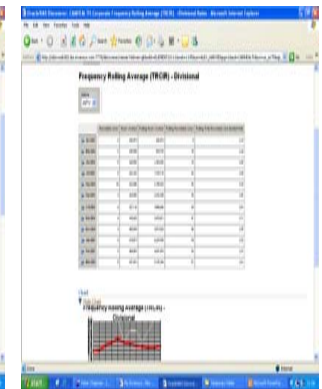
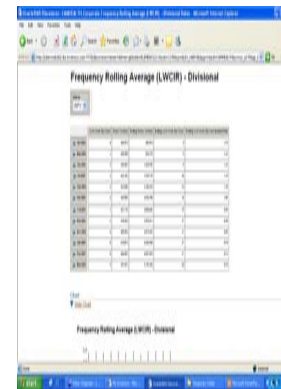
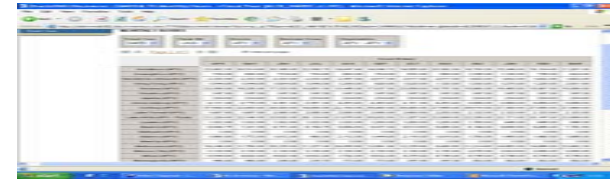
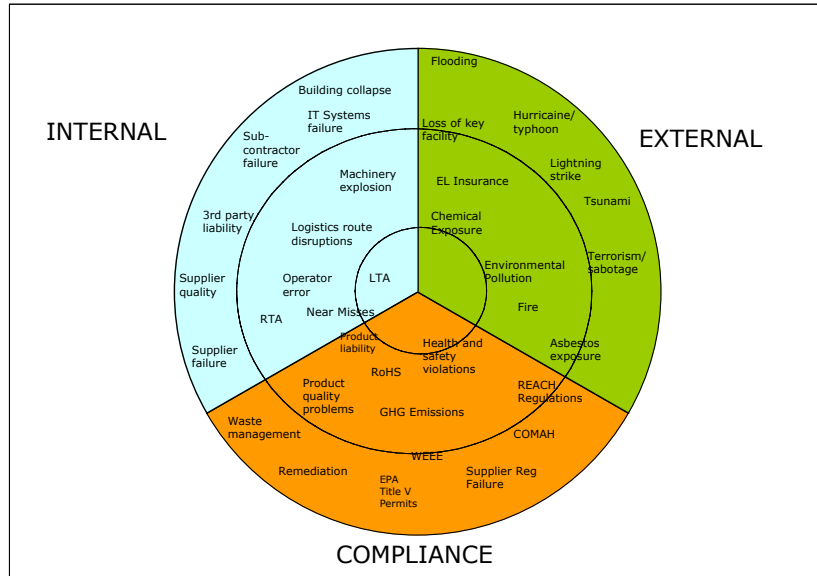


EHS Risk Management: The Strategic Approach

- **Corporate to lead on those issues**
 - > across multiple business units;
 - > affecting key customers;
 - > that link to business strategic objectives
- **Strategic risk management requires an integrated IT system to distribute, collect, analyse and report data (we use EnvironmentIQ)**
- **Increased transparency between functions to avoid “silo mentality”**
- **Corporate to act as facilitators between business groups**
- **Increased recognition of EHS issues in Product Lifecycle assessments (e.g. cost of take back now factored into profitability analysis of new products)**



2020 VISION – EHS DASHBOARD





Thank you for your attention