

Post-Manufacturing Traceability: Legal/Market Trends and Best Practices

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Abstract

Since WTO1 had its agreement on Technical Barriers to Trade (TBT) signed by its members in 1994, manufacturing centers shifted to Asia and more particularly to China which manufacturing exports have been raising exponentially for the last decade. The outsourcing strategy led by global retailers, though it substantially cut down immediate manufacturing costs, also showed a spectacular increase of consumer products notifications and/or recalls, in every field of consumer goods. Meanwhile, neither the import verification programs nor mandatory verification of conformity provide enough guarantees that the retailed products are devoid of any defect or can be recalled in a fast and effective way. Consequently, a new class of regulations was born in 2009, widely based on the post-manufacturing traceability principle. The common backbone of these regulations is analyzed to highlight the key building blocks upon which current regulations are based on. Then, cross industry traceability standards are reviewed and the lessons learnt from the latest pilot projects led in different sector areas will highlight current best practices and stakes while implementing a post-manufacturing traceability system.

Keywords: post manufacturing traceability, product, quality, safety, conformity, authenticity, regulation, market, surveillance, critical tracking events, key data elements, RFID, data matrix, bar code, retail, manufacturing, control, notification, recall, ISO 1736

References:

- [1] [IFT 2011] ProductTracingInFoodSystems.pdf. Jennifer McEntire, Bruce Welt, Institute of Food Technologists (IFT), 2011.
- [2] [IFT 2009] Traceability in Food Systems Economic Report.pdf. Jennifer McEntire, in Food Systems Vol. 2 of 2 Economics Report Revised, Oct 28th 2009.
- [3] [IFT 2012] Food Product Tracing Technology Capabilities and Interoperability.pdf. Jennifer McEntire, Institute of Food Technologists, sttaus report, 2011.[4] [GS1 2005] Wine_traceability.pdf. GS1 Application Guideline, Sept. 2008.
- [5] [EUR 2009-C] Regulation 1223-2009 Cosmetics Products.pdf. Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetics products.
- [6] [DGS 2011] DG SANCO Discussion Paper on Voluntary Traceability Schemes Sept.2011.pdf. Informal expert group on Product Traceability, DG Sanco, Brussels, Sept. 14th 2011.
- [7] [LEA 2011] LeatherIndustryTraceabilityTrends.xlsx. http://www.leathermag.com/poll/poll_display.php/poll=current.
- [8] [LEA 2011] LeatherIndustryAuditProtocol5.2.2 (8 Sept2011).pdf. Tannery Environmental Auditing Protocol, Tannery Environmental Auditing Protocol, Audit Questionnaire, Issue 5.2.2 Effective from July 2011.

- [9] [LEA 2006] Leather Traceability Feasibility Study CTC 2006.docx. <http://www.packagingtoday.co.uk/story.asp?storycode=40745>.
- [10] [LEA 2007] DNA based leather traceability University of Freiburg.pdf. Sandra Gruner¹, Jörg Bohrisch², Renate Geis¹, Michael Meyer¹, «A Permanent and Environmental Stable Marking System for Leather –Traceability via Encapsulated DNA», 2007.
- [11] [CFA 2011] Survey Results Kids in danger Consumer Federation of America Product safety registration cards _10-25-11.pdf. Rachel Weintraub, Consumer Federation of America, October 25, 2011.
- [12] [EUR 2008] EU Regulation proposal cosmetics products2008.pdf. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on cosmetic products, 5.2.2008.
- [13] [CPS 2011] ICPHSO ASIA TOYS AND CHILDREN’S PRODUCTS-FINAL.ppt. U.S. Consumer Product Safety Commission U.S. Regulation of Toys and Children’s Products, Marc J. Schoem, November 1, 2011, ICPHSO Asia-Pacific Symposium.
- [14] [IFT 2010] IFT Product Tracing in Food Systems.pdf. Jennifer McEntire, Product Tracing in Food Systems & Mock, Traceback, IFT reports to the FDA.
- [15] [III 2010-SL] Overview of CiP information exchange systems slides.pdf. Chemicals in Products, An overview of systems for providing information regarding chemicals in products and of stakeholders’ needs for such information; Beatrice Kogg & Åke Thidell, Sectorexper Consultation for the Chemicals in Products Project Geneva, December 9, 2010.
- [16] [DEK 2010] CiP Toy Sector Case Study.pdf. Chemicals in Products Project: Toy Sector Case Study Jennifer Cooper, Susanne Hartlieb, Dialogik & Dekra Industrial, December 2010.
- [17] [GCC 2009] BestPracticesChemicalsinProducts.pdf. Best Practices in Product Chemicals Management in the Retail Industry, Yve Torrie, Project Manager, Lowell Center for Sustainable Production, University of Massachusetts Lowell, Green Chemistry & Commerce Council.
- [18] [DEK 2011] CiP Toy Sector Case Study.pdf. Chemicals in Products, Toys Sector Case Study for UNEP, Uwe Dannwolf, Dialogik Frank Ulmer, Dialogik Jennifer Cooper, DEKRA Industrial Susanne Hartlieb, DEKRA Industrial, February 2011.
- [19] [EUR 2009-T] EU 2009:48:EC Toy Safety Directive.pdf. DIRECTIVE 2009/48/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2009 on the safety of toys.
- [20] [EUR 2009-TT] Traceability Requirements Toy Safety Directive.pdf. Traceability in the Toy Safety Directive, Toy Industry of Europe, DG Enterprise, October 2009.
- [21] [EUR 2009-TG] EU Toy Safety Directive Guidelines.pdf. Guidance document on the application of directive 2009/48/EC on the safety of toys, European Commission, April 2011.
- [22] [PRC 2011] China_RestOfWorldFactSheetv0.1.xlsx. PRC National Bureau of Statistics and PRC General Administration of Customs, China’s Customs Statistics, 2011.
- [23] [IOM 2011] CiP Project synthesis report Nov 2011.pdf. A synthesis of findings under the UNEP/IOMC project on Information on Chemicals in Products, UNEP/DTIE Chemicals Branch, Feb. 2011.
- [24] [III 2010-DR] Overview of CiP information exchange systems full report.pdf. Chemicals in Products, An overview of systems for providing information regarding chemicals in products and of stakeholders’ needs for such information. Beatrice Kogg, Åke Thidell, August 2010.
- [25] [USR 2008] US CPSIA.pdf. Consumer Product Safety Improvement Act of 2008, Public Law 110-314 – Aug. 14, 2008
- [26] [ISO 17367] ISO 17367-2009.tiff. Supply chain applications of RFID, www.iso.org, Nov 15th 2009
- [27] [OEC 2006] OECD – Trends in Conformity Assessment Practices 2006.pdf. Barbara Fliess and Raymond Schonfeld, Trends in Conformity Assessment Practices and Barriers to Trade: Final Report on Survey of Cabs and Exporters, OECD Trade Policy Working Paper No. 37, 11-Aug-2006.

- [28] [RFI 2006] Traceability and Distributed RFID systems.pdf. Towards Traceability across Sovereign, Distributed RFID Databases, Rakesh Agrawal† Alvin Cheung Karin Kailing, Stefan Scho Nauer, Microsoft Search Labs, IBM Almaden Research Center, 2005.
- [29] [RFI 2011] RFID enabled traceability networks.pdf. RFID enabled traceability networks: a survey Yanbo Wu, Damith C. Ranasinghe, Quan Z. Sheng, Sherali Zeadally, Jian Yu, Springer Science+Business Media, LLC 2011, 4 June 2011.
- [30] [WTO 1994] TBT WTO.pdf. Agreement on Technical Barriers to Trade.
- [31] [SAP 2010] SAP_Traceability.pdf. Supply Network Traceability, SAP Labs LLC, Stephen Cloughley, 2010.
- [32] [SOF 2010] Requirements_Traceability.ppt. Requirements Traceability: Processes, Templates, and Lessons Learned, Softability, Stephen Boyd, 25 Feb. 2010.
- [33] [ADB 2009] Food Traceability Japan 2009.pdf. ADBI Working Paper Series – Food Safety and ICT Traceability Systems: Lessons from Japan for Developing Countries.
- [34] [EEC 1987] EEC New Approach.pdf. The new approach to technical harmonization & standardization, Jack Pelkmans, Journal of Common Market Studies, Vol. XXV, March 3rd, 1987.
- [35] [OECD 2011] OECD Guidance Responsible Supply Chain Minerals.pdf. OECD (2011), OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.
- [36] [BRA 2011] TraceabilityToolManagement_Risk-Danielle_Assafin.pdf. Traceability as a Tool of Management Risk, Inmetro's experience on regulation and traceability.
- [37] [CPS 2011] CPSC-Strategic Plan. 2011-2016 | U.S. Consumer Product Safety Commission, Strategicplan, U.S. Consumer Product Safety Commission, www.cpsc.gov.
- [38] [CPS 2008] CPSC-Import safety strategy. U.S. Consumer Product Safety Commission Staff, Import Safety Strategy, 2008, U.S. Consumer Product Safety Commission, www.cpsc.gov.
- [39] [CPS 2009] CPSC Traceability Public Audit March 2009.