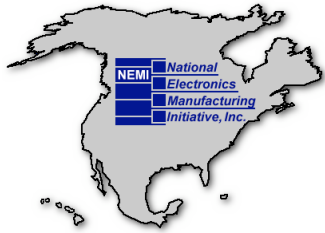


Materials Declaration Data Exchange Proposal

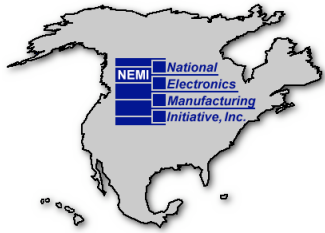
Bob Pfahl



NEMI RoHS Transition Task Group

Background: Transition of the electronics industry to RoHS compliance is driving a number of supply chain and logistics management issues. The Pb-Free Assembly Forum has highlighted gaps in NEMI ECE Roadmap which this team has been created to address

Objective: Define and execute collaborative projects which address supply chain issues surrounding RoHS implementation for the electronics industry.



RoHS Transition Task Group Structure

NEMI Environmentally Conscious Electronics TIG

RoHS Transition Task Group

Dave McCarron, Dell

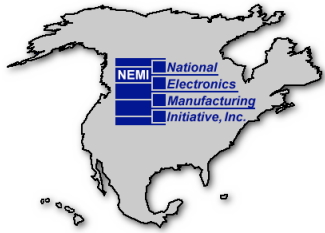
Projects:

Assembly Process Specifications, Frank Grano, Sanmina-SCI

Component and Board Marking, Vivek Gupta, Intel Corporation

Component Supply Chain Readiness, John Oldendorf, Intel Corporation

Materials Declarations, Nancy Bolinger, IBM



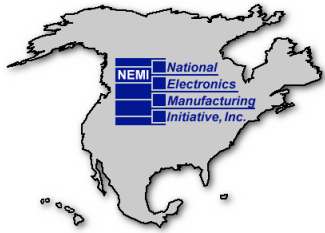
Materials Declarations Project Chair, Nancy Bolinger, IBM

Objective: Develop recommendations on standard materials declaration processes by running a set of pilot tests that:

- Aligns with the EIA, EICTA and JGPSSI Material Composition Declaration Guide
- Focuses on the legally banned and restricted materials (i.e. Annex A in the above Guide), Annex B optional

Goals:

- **Automated reporting process**
- **Minimal supply chain cost impact**
- **Identify tools that adequately support the processes**



Material Composition Declarations (MCD): Required Layers of Standards, Infrastructure and Tools

1. Standard Definition of Content Requirements

- Draft Material Composition Declaration Joint Industry Guide (JIG) – developed by:
 - » Electronics Industries Alliance (EIA)
 - » European Industry Association (EICTA)
 - » Japan Green Procurement Survey Standardization Initiative (JGPSSI)

2. Standard Data Format

- Excel-based standard spreadsheets (JGPSSI, Compliance Connect)
- Draft PDX 2.0: xml based data format standard for Bill of Materials extended to include Material Composition fields as defined in JIG

3. Data Transfer Standard

- Draft RosettaNet PIPs 2A10 and 2A13
- Provide for the automated B2B request and exchange of MCD data

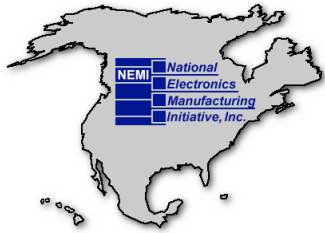
4. B2B Infrastructure connecting Trading Partners

- RosettaNet compliant B2B Gateways and network to support data exchange

5. MCD Tools from Solution Providers

- Provide for data input and validation, aggregation, product level roll-up, analytics, report generation

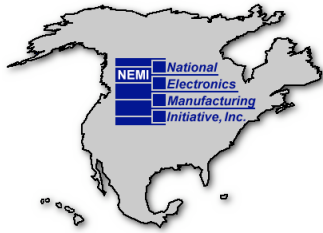
Connect with and Strengthen your Supply Chain



Materials Declarations Project

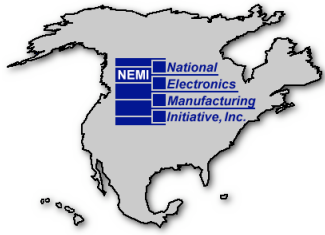
Current Scope:

- **Decide on materials list to pilot**
 - (e.g. Annex A list, not Annex B)
- **Benchmark Available Tools**
 - Goodbye Chain, Centor, Synapsis, Agile
- **Determine Pilot Test Criteria - types of products and/or components**
- **Run pilots and Analyze results**
 - Evaluate tools for accuracy, cost, effort, time, pitfalls/issues
 - Report results
 - Recommend next steps



Suggested new NEMI project to Coordinate Information Systems Activities for Materials Data Exchange

- **NEMI Materials Declaration Working Group:**
 - » Tie in to Joint Industry Guide (EIA, EICTA, JGPSSI)
 - » Definition of Material Composition Declaration content requirements
 - » Coordination of pilots among member companies
- **NEMI/IPC PDX 2.0 Group:**
 - » Definition of xml based standard attributes and format as extension to PDX
 - » Prototype PDX Schema to support pilots (1st Draft released)
- **RosettaNet Material Composition Working Group:**
 - » Definition of PIPs to support the query and exchange of required data
- **Solution Providers:**
 - » Solutions that support the development, use, and adoption of the related standards
- **Explore potential synergies with other groups**
 - » AIAG and OAGIS



Expected Outcome

- **Agreement on standardized PDX 2.0 extension to include Material Composition information**
- **Agreement on standardized RosettaNet PIPs to facilitate the data query and exchange**
- **Usable solutions that address the requirements for data exchange, management and analysis that have been validated through pilots and support the developed standards**

Connect with and Strengthen your Supply Chain