



**NEDA Components Roundtable**  
**San Diego**  
**Feb. 9 and 10, 2005**

**Welcome and Introductions**

Barney Martin welcomed the participants and reviewed the agenda.

**Lead-Free/RoHS/WEEE Updates**

**EU Directives** – still have not been determined – States will have to agree and adapt – target was August – still no directives have been decided

**WEEE Overview** – Waste Management Electrical/Electronics Equipment - Member states have to define laws/systems/regulations

**RoHS Overview** – Restriction of Hazardous Substances – Implement 7/2006

- No clear understanding of what member states expect
- Some customers requesting better than RoHS compliant
- Supply Chain liability – if they repackage, is disti liable?

**Information Needs**

Material Declaration form

- Is Tyco Electronics establishing guidelines
- Availability of data for distis – is there a system or standardized format?

**Lead-Free Summit Update** (data on NEDA website)

Nancy Bolinger IBM - 919-543-4209 [nb@us.ibm.com](mailto:nb@us.ibm.com)

**Mfr. Survey for PB-Free Transition/RoHS Compliance Information**

Distributors will submit survey to suppliers – see detail on meeting CD

- Clarify RoHS compliant vs. Lead-Free
- Can provide data in different format, but this info is what's required most frequently.
- Lead-Free more of a process issue – parts to be processed on LF line.
- PB Free status defined by RoHS directive

**Supplier Labeling Survey - RoHS/Pb Free**

<b>Supplier</b>	<b>Representative</b>	<b>Label Status</b>
Kemet	Mary Carter-Berrios	RoHS compliant marking only - no more Pb Free RoHS "Yes" or "No"
KOA Speer Electronics	Mike Griffith	RoHS compliant - "ECO" (with or w/o exemptions) RoHS non-compliant - "Pb"
BI Technologies	Rob Taflinger	RoHS compliant (with or w/o exemptions) "e3" symbol per JESD97
Bourns	Jerry Seinturier	"Pb" free symbol (circle/slash)
AVX	Chris Reynolds	"Pb" free symbol (circle/slash) on non-exempt product RoHS compliant - Picture of fir tree All down to reel level
T.I.	Dan Wikander	"Pb" symbol in (circle/slash) means RoHS compliant Solder finish category (e1, e2, e3) Green mold compound level (G1)
Murata	Melissa van der Loop	RoHS - "Y" or "N" no symbols
Phoenix Contact	Arnold Offner	Circle around "RoHS" with "check mark" inside the circle indicates "WEEE" compliance
Tyco Electronics	David Bender	RoHS compliant (with or w/o exemptions) no symbols
Vishay Intertechnology	Clark Smith	JESD97 spec - "Pb" free symbol (circle/slash) if Pb free If RoHS compliant, box around Pb symbol per spec RoHS compliant (with or w/o exemptions) Solder finish category (e3) No "RoHS" label until standard adopted
IRC/TT Electronics	Aaron Edwards	"Pb" free symbol (circle/slash) indicates RoHS compliance
Panasonic	Tom Anderer	Multiple methods by manufacturing site "Pb Free" words or "Pb" - no symbols Some have colored lines on label - no consistency
Analog Devices	Jim O'Conner	?
Fairchild Semiconductor	Kirk Olund	?
Philips Semiconductor	Rene Briones	?
National Semiconductor	?	?
Advanced Micro Devices	?	?
Intersil Corp.	?	?
Xilinx, Inc.	?	?

**Summary from RoHS Discussion**

How will Receiving personnel know what is lead-free? When there is a RoHS exemption – should that be signified on the label? Will the label provide the information that is required for the Receivers and operators on the line?

**1D/2D Barcode Subcommittee Report – Dan Wikander – Texas Instrument**

NEDA Supplier Guideline for 1-Dimensional Bar Code & 2-Dimensional Matrix Code – Product Package and Shipment Labeling

- Dan presented update on proposed guideline – *not recommended to be given to suppliers as specification, but provided as a guideline showing minimum requirements.*

#### Symbologies

Code 39 vs. 128

Data Matrix more space sufficient than PDF

Recommends data matrix on unit label and PDF for shipping label

Crossing between 1D and 2D requires updated equipment

#### **IV. Equipment and Materials**

Add compatibility information for 1D

Add maxi-code information

**Action: Update information in Table - Dan Wikander**

#### **VI. Marking – *intended for intermediate bag, reel or box***

- A. Component Marking – can be used to scan onto the board when installed
- B. Product Package – CEM's require customer number info and Supplier (Mfg) Part Number, distributors will sometimes require customer number
  - Can start with 1D barcode and human readable and transition data to 2D code
  - Can be used to specify Environmental (RoHS/Lead-Free/Lead Finish) status on barcode
  - Dan proposed adding the letter R, to specify RoHS compliant or R with and X for RoHS compliant with exemption, to the barcode
  - If not on manufacturer label, distributor must put it on the label from the – distributor would prefer information is on the Original Manufacturer's label.
  - Distributor should not have to scan two codes to get one piece of information.
- C. Shipping & Receiving – Shipping Carton Requirements - *see label example*
- D. Master (Pack List/Delivery Note) – *see label example*
  - For required information that has to be scanned – provide label identifier

Next NEMI update on 1D/2D Barcode – includes printer mfrs, (Zebra, Intermec) and imagers (?) will be sponsored by TI.

**Action: Provide details to Barney for distribution to attendees – Dan**

**Action: Create new guideline for Labeling/Coordinate with INemi –**

**Action: Coordinate activities for packaging guideline (with reference to Labeling Guideline) Dan Wikander, Jay Smith, Jerry Czerwonka and John Gable, Gil Alcaraz – Ty Golden**

#### **JEP130 Update – Jerry Czerwonka - Avnet**

- Package/Tray Count Spec – was not completed because of missing table info – requested to drop table and resend balance of spec to submit to JEDEC for final publication

– Jerry voting member in JEDEC – if you know there is an issue being addressed by JEDEC, contact Jerry to aid in the approval process.  
JEP97 – document does not cover issues with RoHS compliance; do we add an *R* or other identifiers, etc.?

**Action: Create taskforce to review JEP97 - Jerry Czerwonka**

- Avnet not seeing large demand for LF products, but know of mfrs planning to go LF by July '05

- Recommend Distis propose label format to present to JEDEC for consideration

**Action: Determine taskforce to submit proposal to next JEDEC meeting - Jerry**

*Note: JEDEC does allow people outside the membership to attend the meetings - contact Jerry for more information.*

**Radio Frequency Identification in Industrial Distribution - RFID in ID**

Guest Speaker: Alireza Shapoury – Texas A&M

*See presentation (included on meeting CD) for additional details*

**ECA Update – Mike Griffith – KOA**

Explained definition of ECA and the relationship to EIA.

- Standards organization for I P & E components.

- ECA has added Soldering Technology group – if there are issues, i.e. Tin Whiskers, bring this to Mike's attention and he can address with group.

- CB19 Technical Bulletin

Tin Whiskers

Surface Mount

Group will reword document to cover all surface mount passive components – April – available in pdf.

Ceramic capacitors – lead-free for at least 10 years – no reports of tin whiskering for these 10 years in commercial applications. Conclusion is that there is no issue using tin in solder terminations (0201 or smaller, may have a problem – anything larger, no issue).

ECA will not create its own Pb/RoHS standards, but will rely on other committees and standards organizations to take care of it.

Melanie inquired about the issue with Date Codes. In our last meeting we agreed to work with the Solder Technology committee to determine if any solderability test results are available. There is a test where components are aged in a chemical bath (done with Actives). Soldering Technology committee will no longer recognize steam aging as a method to test solderability. Aging should now be checked by chemical bath. Suppliers (KOA, Vishay, Bourns) pooling resources to pay for testing (\$3000). Soldering group also doing accept or reject criteria for solderability – will update specification for solderability.

Soldering Technology committee is working on a document that states position on solderability because of use of 100% tin in lead terminations. No papers currently written on studies of aging of tin terminations. Committee is stating shelf life of 2 years.

INemi – spear heading study on testing of tin whiskers – but thought is that their testing methods are not based on empirical data, but on someone’s “word”. ECA is taking INemi to task in May at the ECA meeting. Need to get this all under control with more accurate data and testing specifications.

Mary Carter-Berrios added a comment about how these tests require the growth of whiskers in the 6-month process. Kemet had to acquire contaminated material from their lead frame supplier in order to ensure whisker growth. If whiskers are not produced, all of the testing is not accepted or “thrown out”.

*Next ECA meeting is May 16-19 in New Orleans. Soldering Technology meeting is May 17.*

**Action: Forward document to Barney for distribution – Mike Griffith**

**Action: Invite representative from EIA to attend next meeting to give update on activities – Mike**

**Packaging Guideline Sub-Committee - Update** – Ty Golden – TTI

Ty and his sub-team will focus on packaging/placement issues while Dan Wikander focuses on labeling – the team will review both the NEDA Guideline and JEDEC 30 and determine if one guideline will address both Passives and Actives – Ty to schedule call with subcommittee in March.

**Action: Schedule conference call with subcommittee in March – Ty Golden**

**NEDA Guideline Revisions – Updates** – Rod Spear – TTI

Rod has reviewed and determined that all are outdated. Guidelines have been assigned to Jay-Future, John/Mike-Arrow, Jerry-Avnet and Rod-TTI to review in next 3-4 weeks. Report back to committee chair if guidelines need to be deleted, reworked/revised, or remain “as is. Assign working groups if revisions are needed before next meeting in June, 2005.

\* **Barney** to give Rod contact name for review of NIGP 110.

**Tariff Code/ECCN Data – Update** – Catherine McIntosh – Tyco-Raychem

The distis have an issue with suppliers providing clean export data. Possible options: Post-it on website (preferred) or download information and send to distis periodically.  
- Form subcommittee to create guideline for the format and method for providing export data to distis.

**Action: Determine members of sub-committee and set-up conference call to initiate project – Catherine McIntosh**

Jay Smith (*to provide designated rep*) – Future

Gene Pfretzschner – TTI

Jerry Seinturier – Bourns

Phil McGavin – Vishay

**CTPAT – Customs/Trade Partnership Against Terrorism**

**Action: Invite guest speaker to next meeting in June – Ty Golden**

### **Other Issues**

- How to use the NEMI form when working with multiple (i.e. 50,000) part numbers –  
\* Barney left a message for Nancy Bolinger for follow-up.

**Action: NEMI form – Sub-group to review and determine if form meets NEDA needs** – Jay Smith - Michael Griffith, Mary Carter-Berrios, Arnold Offner, Aaron Edwards

What does the Pb Free symbol mean and to which organization

**Action: Create matrix with definitions of Pb-Free – Barney**

Packaging Requirements and ISO14000 - 94/62/EC – only covers liquid requirements

**Action: Investigate if there are other requirements – Arnold Offner**

- Engineering Samples / RoHs Exemption – George Gerber from Vishay recommends that NEDA endorse removal of engineering samples from the umbrella of the directive for qualification.

**Action: Address at next meeting – Barney**

**Worksheet Survey** – should each distributor send to their suppliers?

It was agreed that each distributor will send to their supplier contacts. What is the process for escalation if suppliers do not respond? – Barney will send it to the NEDA contact with a list to the Distributors so they know who it was sent to. If escalation is required, NEDA will get in touch with the key contact at the supplier or will work through the Distributor contacts.

**Action: Send Worksheet Survey to NEDA Contact List – Barney**

*The group agreed that we should combine the next Roundtable with the upcoming Lead-Free Summit being held in Chicago.*

Next Meeting in Chicago – June 7,8

- Tuesday - meeting will be 1-5 PM

Wednesday - meeting will be 8A-5P

Lead-Free summit on Thursday – June 9

Attendees include distis, mfrs, CEM's, OEM's

### **Review of Action Items:**

- 1) Standardized Data Set for Reporting Material composition – need to drive from NEDA – Tom Anderer/Panasonic suggested that NEDA should help this initiative in order to speed along adoption of a standard to help suppliers reduce the number of surveys and questionnaires they are filling out daily – (see Action Item 11 for more detail).

- 2) Separate NIGP101 into two separate guidelines: Packing and Handling vs. Labeling – delete NIGP 101
  - a. Create new guideline for Labeling/Coordinate with iNemi – **Dan Wikander** - Chair
  - b. Create new guideline for Packing and Handling – **Ty Golden** – Chair
- 3) NIGP Review – **Rod Spear** – Chair  
 Rod assigned guidelines to Jay – Future, John and Mike – Arrow, Jerry – Avnet and Rod – TTI to review in next 3-4 weeks. Report back to committee chair if guidelines need to be deleted, reworked/revised, or remain “as is”. Assign working groups if revisions are needed before the next meeting in May, 2005.
- 4) **Barney** to give Rod contact name for review of NIGP 110.
- 5) **Mike Griffith** – KOA – will arrange for EIA member to attend next meeting to give update on activities – i.e. Soldering Technology studies, etc.
- 6) **Catherine McIntosh** to coordinate tariff code/country of origin committee activities – need a standard way for suppliers to report this information to distributors by part number – members volunteered from Future, TTI, Arrow, and Jerry Seinturier from Bourns.
- 7) **Barney** to investigate what R.E.A.C.H. is to determine if we should address this upcoming potential issue.
- 8) CTPAT – Customs regulations to protect against terrorism – (Customs Trade Partnership Against Terrorism) – how will this affect Distribution? **Ty Golden** to get speaker from TTI for the next meeting in May.
- 9) **Barney** to get with Nancy Bolinger for contact information to put on disk (iNemi).
- 10) **Barney** to verify how to use the iNemi form to fill out for 10,000 items – contact Nancy Bolinger.
- 11) **Barney** – get committee together to review iNemi form to find out if it meets the NEDA requirements – conference call – Jay Smith, Michael Griffith, Jim O’Conner, Arnold Offner, Mary Carter-Berrios. If it does not meet our needs, we can make changes and quickly put together a guideline for NEDA to adopt.
- 12) **Barney** – put together matrix or list of current definitions of Pb Free.
- 13) **Jerry Czerwonka**– Avnet – work on guideline for labeling that Distributors will be sending to our customers.
- 14) **Jay Smith** to make revisions to NEDA RoHS worksheet, scorecard and survey questions as agreed upon during meeting discussion.
- 15) **Arnold Offner** – review adoption of EC Directives by country in Europe.
- 16) George Gerber from Vishay – recommends that NEDA endorse removal of engineering samples from the umbrella of the directive for qualification. **Barney** to address at next meeting.
- 17) **Jerry** – Revise JEP 130 to remove Device Count tables
- 18) Set next meeting date: June 7,8 – set in conjunction with NEDA Summit meeting in Chicago on June 9<sup>th</sup>. Memphis tentative for September.
- 19) **Barney** – Market the NEDA Spreadsheet
- 20) **Barney** – Date code Issues
- 21) **Barney** – Update NEDA Website with RoHs and WEEE “Stuff” and get information about consultations and decisions to members

- 22) **Jay** – update “WEEE/RoHS supplier questionnaire
- 23) Packaging Materials – **Chuck Amstead** to look into EU directive and ISO 14000.  
Is the EU directive law in the member states and does it apply to our industry?
- 24) **Barney** – Review labeling standards from other organizations