

2214 Rock Hill Road, Suite 110 • Herndon, VA 20170-4214  
Tel: +1 703-834-2083 • Fax: +1 703-834-2735

Meeting Minutes  
20 November 2008

#### Actions

- **Scott O'Connell and Jim Arnold to setup agenda for next call on 04 December 2008**
- **Next Meeting: Thursday 04 December 2008 2 pm EST (1pm CST; 11am PST)**
  - **20 November Meeting Agenda:**
    - **Continued Discussion on Development of Project Statement of Work (SOW)**
    - **Review revised matrix of PVC and PVC alternative materials**
- **Follow on meetings are planned every two weeks for the rest of 2008 i.e., 04 December; and 18 December.**
- **Weekly meetings will be scheduled beginning 08 January until the SOW and PS are completed. The expectation is to have the SOW and PS completed mid to late February.**

#### 11/20/08 Conference Call Participants

Bill Reents (Alcatel-Lucent)  
Joseph Wiesner (Alcatel-Lucent)  
Tom Okrasinski (Alcatel-Lucent)  
Sarah Westerdale (BASF)  
Mitch Willis (BASF)  
Scott O'Connell (Dell)  
Jan Stouffer (DuPont)  
Erin Gately (HP)  
Leo Heiland (Intel)  
Bill Olson (Motorola)  
Peter Canepa (PE Americas)  
Marc Binder (PE Americas)  
Robert Kinyanjui (Sanmina-SCI)  
Todd Washburn (SABIC)  
Curtis Robb (Volex)

Jim Arnold (iNEMI)  
David Godlewski (iNEMI)

Susan Landry (Albemarle)  
Brian Larin (BASF)  
Guenter Kehr (BASF)  
Ricardo Cuetos (BASF)  
Rachel Nolan (Bayer MS)  
Matt Holman (BizLink)  
Wayne Li (BizLink)  
Joe Johnson (Cisco)  
Lise Laurin (EarthShift)  
D'Lane Wisner (D'Lane Wisner)  
Bryce Busby (Dell)  
Conrad Hovik (Dupont)  
John Marshall (Dupont)  
Nancy Bolinger (Lenovo)  
Constantin Herrmann (PE International)  
Mike Newman (Recellular)  
Andrew Poslinski (SABIC)  
Cathleen Hess (SABIC)  
Robert McKay (SABIC)  
Dave Bender (Tyco)  
Bud Hall (Vinyl Institute Consultant)

#### Potential Participants not on call

\* If you have additions and deletions for the distribution list, please forward the information to Jim Arnold ([jim.arnold@rissastudios.com](mailto:jim.arnold@rissastudios.com)). He will take the appropriate action to add or remove names.

**NOTE:** Please send a note to Jim Arnold ([jim.arnold@rissastudios.com](mailto:jim.arnold@rissastudios.com)) with any changes to the distribution list or modifications to these meeting minutes.

## **20 November Meeting Agenda:**

- Review Purpose of Call – Jim Arnold (iNEMI) – see **General and Administrative Issues** at the end of this note
- Brief Overview for New Participants (Minutes from the first call are attached for reference)
- Continued Discussion on Development of Project Statement of Work (SOW)
- Review initial matrix of PVC and PVC-alternative materials
- Questions, Issues, and General Discussion – All Participants

### Initial Proposal from First Meeting

Scott O’Connell presented an initial proposal on possible elements of an iNEMI PVC Alternatives Project. The presentation material will be sent to the general distribution for those who were not able to download the material from the iNEMI web site. The presentation material was intended to provide a baseline for the discussions. Anyone who has comments, questions, or issues they would like addressed, are encouraged to send a short note to either Jim Arnold ([jim.arnold@rissastudios.com](mailto:jim.arnold@rissastudios.com)) or Scott O’Connell ([scott\\_oconnell@dell.com](mailto:scott_oconnell@dell.com)) for review and redistribution to the participants. Any information provided will be sent to the general distribution and time during the conference calls will be scheduled for discussion.

### Review of Past, Present, and Proposed Projects (P<sup>4</sup>)

- Some initial information is shown in the attached presentation materials (Slide #3)
- Bud Hall provided a link to the EPA final report on “Wire and Cable Insulation and Jacketing: Life-Cycle Assessments for Selected Applications”, and the summary document, “Wire and Cable Insulation and Jacketing: Life-Cycle Assessments for Selected Applications—Summary”. The link is: <http://www.epa.gov/dfepubs/wire-cable/lca.htm>

### Brief Summary of Questions, Issues, and General Discussion

- What studies have been and are currently being done?
- Scott provided an initial listing in the initial presentation made at first meeting/
- One issue with current studies is the lack of adequate material information.
- Need information on the full life cycle and should not overlook the complexity of end of life scenarios
  
- Anyone wishing their comments or questions to be anonymous can send them to Jim Arnold who will distribute them accordingly.

### Next Steps

- Next meeting: Thursday, 04 December. Agenda for meeting will be sent out no later than one week prior to the next call, i.e. 27 November.
- Participants to continue discussion on determining which materials and tools to use for the initial LCA Assessment
  - Project should consider using two different end of life scenarios
- The LCA assessment should use at least two different tools to see what and if there are differences.
- Some of the variables discussed
  - Consider breaking the materials into categories, e.g.,
    - Alternative Chlorinated Resins

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- Polyphenylene Oxides (PPO)
    - Polypropylene Homopolymers (PPU)
    - Nylons
    - Rubbers, e.g., neoprene
    - ...
  - For PVC based materials
    - Identify material formulations to possibly include in the initial LCA comparison
    - With and without phthalate Plasticizers
  - Flame retardant technologies
    - Br and Br-free materials
  - What applications should be targeted?
  - Geography
    - Where are the materials and products made?
- Based on the discussion a new matrix was developed to begin to capture some of the information discussed.
  - The request was made for the participants to provide as much information to fill in the new matrix as possible.
  - Provide any additional information that should be included.
- Discussion of the input provided will be scheduled for the next call.
- iNEMI to look into setting up a face-to-face meeting during APEX 2009 in Las Vegas

### **General and Administrative Issues**

#### **Purpose of Calls**

The purpose of the meeting was a continuation of the discussion from last meeting to begin setting priorities and direction for the evaluation of PVC insulation on cables used in the electronics industry. The intent is **not** to repeat past or present studies and/or projects; however to investigate the possibilities in developing a series of related tasks (a project or series of projects) that will add to the existing Life Cycle Assessment (LCA) knowledge base. iNEMI is a member based organization and projects are normally restricted to iNEMI members only; however to get a broader perspective from the industry the Project Formation process is open to anyone interested participating in defining the Project tasks. Participation in the Project Formation process will provide a forum where participants can help establish the agenda for the electronics industry. The ultimate goal of the Project Formation discussions is to develop a formalized Statement of Work (SOW) and Project Statement (PS) for the Project (The iNEMI SOW and PS templates are available for review upon request).

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### Formalizing the Project (Summary from 06 November Meeting)

- It is important to create a set of goals and clearly define what will be done. This will be added to the project plan.
- iNEMI recognizes the need to have clearly a defined set of tasks, i.e., a formalized Project plan, and has developed a set of guidelines and templates to assist teams through the development of a Statement of Work (SOW) and Project Statement (PS) for every project proposed.
- The Project formation team will be responsible to make recommendations if the project should be broken into multiple phases. For the PVC Alternatives Project, possibilities are:
  - Phase 1 - Literature search and review of previous and existing projects, e.g., some examples are listed in the presentation provided by Scott O’Connell
  - Phase 2 - LCA assessment of PVC and PVC-free cables
  - Phase 3 – Technical Evaluation of PVC alternatives, e.g., electrical, mechanical, safety.
- Jim Arnold will work with the team to pull together the iNEMI PVC Alternatives SOW and will work with the Project Leader (to be identified) to get iNEMI Technical Committee (TC) approval.
- After the TC has approved the SOW and PS, the Project will be advertised and open to all iNEMI members to participate. The initial signup period is typically 30 days, at which point the project signup is closed.
- Once a project closed any requests to participate in the project will require approval from the Project’s founding members.
- The next TC meeting is scheduled for 04 December. The current plan is to present a brief status on the progress of the discussions.
- Note that we will eventually be running a multi-company project. For the project to fall under “iNEMI umbrella” for working in a pre-competitive environment, we need a Statement of Work (SOW) and Project Statement (PS) in order to formalize the project.
- By following the iNEMI By-Laws and Policies the “umbrella” shields the participating companies from anti-trust issues. The project formation team is chartered to pull together the SOW and PS. These documents will be reviewed and approved by iNEMI Technical Committee. Companies wishing to participate in the formalized project will be required to agree to the terms and conditions identified in the SOW and PS and sign the PS, returning the signed copy to the iNEMI main office for final approval.
- Jim Arnold will provide an overview of the iNEMI project management process for any participants who have questions or would like additional information on iNEMI Projects.

### Sharing files

- Any information participants would like to share with the group can be forwarded to Jim Arnold who will distribute the information to the rest of the participants.

### Feedback

- Participants are also encouraged to provide feedback (positive and non-positive comments are both welcome) on the process so iNEMI can continue to improve the Project formation process.

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