

# Preliminary Agenda 21 January 2010

## PRELIMINARY MEETING AGENDA – CE-2.1 SUBCOMMITTEE ON TEST PROCEDURES 27 – 28 April 2010 in Orlando, FL

### 1. Approval of the 13 – 14 October 2009 Minutes

### 2. TEST PROCEDURE PROJECTS (BY PROJECT NUMBER)

"If any SP listed below receives insufficient votes for approval, the committee may approve the document for EDEC ballot at this meeting. It is the responsibility of the member to submit comments in writing prior to the meeting".

#### A. SP-5194 (was PN-4943), TP-65B, MFG (Max Peel)

Sent the standard and cover memo (mccwil394) to EIA for EDEC ballot on 29 October 2009 on behalf of Max Peel. Also sent letters of acknowledgement to John Healey (mhealey21) and Bob Druckenmiller (mdruckenmiller16) on their approved ballots with comments.

Standard was published on 10 December 2009 and received by US Mail on 28 December 2009.

#### B. SP-5174-2 (previous designation PN-3787), EIA-364-1004, Environmental Test Methodology for Verifying the Current Rating of Free-Standing Power Contacts or Electrical Connectors and Sockets (Max Peel)

Sent standard, cover memo (mccwil397), and rejection letters to John Healey (mhealey22), Vince Pascucci (mpascucci18) and Frank Ruffino (mruffino1) to EIA for a second short 30-day SP ballot on 20 November 2009 on behalf of Max Peel.

30 day SP Ballot issued 4 December 2009 with a ballot expiration date of 4 January 2010.

#### C. SP- 5179, TP-112, Effective Resistance of Parallel Circuits Test Procedure for Electrical Connectors and Sockets (Frank Ruffino)

Sent the standard and cover memo (mccwil393) to EIA for EDEC ballot on 26 October 2009.

#### D. SP-5180, TP-41E, Cable Flexing (Max Peel)

Sent the standard and cover memo (mccwil390) to EIA for EDEC ballot on 26 October 2009. Also sent letters of acknowledgement to David Bouzek (mbouzek7) on the unofficial comments he submitted on behalf of Richard Misiaszek of Raytheon: as well as to Bernie Aronson (maronson) on his unofficial editorial comments on behalf of ECA..

#### E. SP-5186, Standards Due for 5-Year Review, EIA-364, TP-51, 58, 96 and 109 (Carl Fritz)

Received all standards as reaffirmed by US mail on 28 December 2009.

# Preliminary Agenda 21 January 2010

## **F. SP-5187, EIA-364-88A, Residual Magnetism Test Procedure for Electrical Connectors (Carl Fritz)**

Standard was published on 13 November 2009 and received by US Mail on 7 December 2009.

## **G. SP-5188, EIA-364-80, Low Frequency Shielding Effectiveness Test Procedure for Electrical Connectors and Sockets (Kevin Rickard)**

Kevin Rickard has requested to revise the subject standard to address the 1 ohm resistance as part of the reference measurement. It was moved by Kevin Rickard and seconded by Don Chambers to obtain a project number, and send the standard to EIA for a SP ballot. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

Carl reported that he sent cover memo (mccwil377 and PINS form to EIA requesting a project number on 3 June 2009.

Received project number 3 June 2009 and notified Kevin Rickard.

Kevin reported that work on revising the standard was in progress.

## **H. SP-5189, EIA-364-45A Firewall Flame Test Procedures for Electrical Connectors (Don Chambers)**

Carl reported that he sent cover memo (mccwil380 and PINS form to EIA requesting a project number on 4 June 2009 on behalf of Don Chambers.

Received project number 4 June 2009 and notified Don Chambers.

Don reported that work on revising the standard was in progress.

## **I. SP-5195, TP-82B, Corrosivity of Plastic Test Procedure for Electrical Connectors and Sockets Housings (Max Peel)**

Sent letter to Cecelia (mccwil398) to cancel project. The addition of a second test method for contacts to this test procedure is being withdrawn. The subject will be addressed under a separate new test procedure that is being developed at the request of the project leader.

# Preliminary Agenda 21 January 2010

## **J. PN or SP-5199, TP-83, Shell - to - Shell Conductivity (Kevin Rickard)**

The unanimously agreed to take this on as a new project to revise the standard. Kevin Rickard has agreed to be project leader. It was moved by Kevin Rickard and seconded by Don Chambers to obtain a project number for the purpose revising the standard and send out on letter ballot or SP as determined by the project leader. The motion was unanimously approved. Kevin will present a draft revision at the next meeting.

Kevin gave a presentation on the work done at Amphenol. Kevin requested Word file copy of the standard.

**(See Attachment No. 13 for Rickard report).**

Sent cover memo (mccwil389 and PINS form to EIA requesting a project number on 17 October 2009 on behalf of Kevin Rickard.

Received project number 21 October 2009 and notified Kevin Rickard.

## **K. SP-5200, TP-25C, Probe Damage Test Procedure for Electrical Connectors (Dave Bouzek)**

The unanimously agreed to take this on as a new project to revise the standard. Dave Bouzek has agreed to be project leader. It was moved by Kevin Rickard and seconded by Don Chambers to obtain a project number for the purpose revising the standard and send out on letter ballot or SP as determined by the project leader. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections or unresolved technical comments received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

See revised copy dated 14oct09. Dave to provide revised figures to Carl

Sent cover memo (mccwil391 and PINS form to EIA requesting a project number on 22 October 2009 on behalf of Dave Bouzek.

Received project number 23 October 2009.

Sent the standard, cover memo (mccwil392) and Background Data Sheet to EIA for SP ballot on 27 October 2009.

Ballot issued 5 November 2009 with a ballot expiration date of 5 January 2010.

# Preliminary Agenda 21 January 2010

## **L. SP-5203, EIA-364-1005, Fretting Corrosion (Max Peel and Vince Pascucci)**

The unanimously agreed to take this on as a new project to create a TS specification. Max Peel and Vince Pascucci) have agreed to be project leaders. It was moved by Don Chambers and seconded by Ed Wypasek to obtain a project number for the purpose creating a standard and send out on letter ballot. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections or unresolved technical comments received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

Sent cover memo (mccwil401 and PINS form to EIA requesting a project number on 8 December 2009 on behalf of Max Peel.

Received TS number and project number on 8 December 2009 and notified Max Peel.

## **M. SP-5204, EIA-364-113, Corrosivity of Contacts Test Procedure for Electrical Connectors and Sockets (Max Peel)**

Sent cover memo (mccwil400 and PINS form to EIA requesting a project number on 8 December 2009 on behalf of Max Peel.

Received TP number and project number 8 December 2009 and notified Max Peel.

Sent the standard, cover memo (mccwil402) and Background Data Sheet to EIA for SP ballot on 9 December 2009.

Ballot issued 10 December 2009 with a ballot expiration date of 10 February 2010.

## **3. TEST PROCEDURES AWAITING PROJECT NUMBERS (BY TP NUMBER)**

### **A. EIA-364-31D, Humidity Test Procedure for Electrical Connectors and Sockets (Max Peel)**

Carl Fritz reported that sent Max Peel draft working copies that split this standard into 2 standards on 11 December 2008.

Revision under development.

# Preliminary Agenda 21 January 2010

## B. TP-79, Insert Bond Strength (Kevin Rickard)

Kevin Rickard has agreed to take this on as a new project. It was moved by Don Chambers and seconded by Kevin Rickard to obtain a project number and send to EIA for a SP ballot. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

- The following is my reply to the e-mail from Don Chambers on 7 May 2009:

Don, I hit the send button before I was done. I was just thinking you may also want to consider eliminating other holes in the mating surface such as alignment pins in large connectors, and jack screw holes. There may be other openings in addition to just cavities. Regards Carl

In a message dated 5/7/2009 5:48:51 PM Eastern Daylight Time, Don.Chambers4@ngc.com writes:

I am not sure how we handle this, but to address Lisa Hoffer's (DSCC-VAI) concern I would propose to alter TP-79 para 4.1 as follows:

Using suitable equipment, an axial tensile load shall be applied to the test specimen. Unless otherwise specified, the load shall be sufficient to cause a stress of 689 kPa  $\pm$  35 kPa (100 psi  $\pm$  5 psi) to the insert assembly bond. The actual axial load required is determined by multiplying the available bond surface area of the test joint by the required stress. **The available bond surface area is the total surface area less the area of any cavities.** Unless otherwise specified, for a bonded connector insert assembly, the load shall be increased at a minimum rate of 0.45 kilogram per second (1 pound per second) until the required load is reached. Unless otherwise specified, the required load shall be maintained for a minimum of 30 seconds.

The text in blue is my addition for clarification.

Your thoughts?

Don Chambers

Kevin Rickard reported that he would send Carl Fritz a revised copy for SP ballot.

# Preliminary Agenda 21 January 2010

## C. J-STD-075 (Frank Ruffino)

Discuss the merits of developing a TS standard to outline tests necessary to evaluate connectors and determine the PSL (Process Sensitivity Limits) Level in J-STD-075.

J-STD-075 has PSL levels for Wave and Reflow compatible connectors, however there is no evaluation method or criteria specifically for connectors.

The unanimously agreed to take this on as a new project to develop a document to determine the PSL (Process Sensitivity Limits) of connectors as related to J-STD-075. Frank Ruffino has agreed to accept the review as project leader. It was moved by Frank Ruffino and seconded by Kevin Rickard to obtain a project number, and send the standard to EIA for a SP ballot. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

Awaiting further information from Paul Krystek (IBM) on the work that is being done. Further discussion will take place at the next meeting. Members are requested to review J-STD-075 to see if their products can meet the current requirements and determine if they can be classified.

# Preliminary Agenda 21 January 2010

## **D. TP-78A, Cavity – to – Cavity Leakage Bonding Integrity Test Procedure for Electrical Connectors (Don Chambers)**

- Received this e-mail from Don Chambers on 17 March 2009:

In a message dated 3/16/2009 6:04:18 PM Eastern Daylight Time, Don.Chambers4@ngc.com writes:

Carl,

I was looking at TP-78 and noticed something curious. Are the connector end seal plugs supposed to be the same as MS27488?

- My reply to Don on 17 March 2009:

Good morning Don, I am glad to see that you are reading these things. It beats reading the dictionary or phone book. I checked in the original release of TP-78 dated September 1991 and found indeed that in clause 2 it stated that "The appropriate electrical connector end seal plugs similar to MS27488 are suitable for this purpose." I think the reasoning at the time was to include what was in MS27488 in the standard and not chase someone to another document. Also by having the information directly in the standard we would have control of the content, in the event that the military changed MS27488. We did not want to get into the "chicken and egg" situation as to which takes precedence. I think the intent was also to verify that the compliance to the MS is there when this standard is revised. I guess it would not hurt if we indicated the association in the TP as reference information. Worthy of consideration. Hope this answers your question. Carl

The unanimously agreed to take this on as a new project to revise the standard. Don Chambers has agreed to be project leader. It was moved by Don Chambers and seconded by Kevin Rickard to obtain a project number, and send the standard to EIA for a SP ballot. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

Don reported that work is on going.

## **E. New TP for Ultra Violet Radiation (Don Chambers)**

The unanimously agreed to take this on as a project to create a new TP. Don Chambers has agreed to be project leader. It was moved by Don Chambers and seconded by Kevin Rickard to obtain a project number and send out on letter ballot or SP as determined by the project leader.

Don reported that work is on going.

# Preliminary Agenda 21 January 2010

## **F. TP-65C, MFG (New project to revise TP-65B) (Frank Ruffino).**

This project will be addressed following the release of TP-65B.

The unanimously agreed to take this on as a new project to revise the standard. Frank Ruffino has agreed to be project leader. It was moved by Bob Druckenmiller and seconded by Don Chambers to obtain a project number for the purpose revising the standard and send out on letter ballot or SP as determined by the project leader. The motion was unanimously approved. It was also unanimously moved and approved that if there are sufficient ballots and no rejections received that the standard be sent to EIA for EDEC ballot and publication as an EIA Standard. In addition the standard should also be submitted to ANSI for publication as an American National Standard.

The following comment was noted and is considered a technical change. It will be considered at the next revision of the standard.

Section 4.4.1.3 These coupons shall be placed in the chamber ~~between approximately at the mid point of the first half of the test duration and the mid point of the second half~~ at the start of the test. The coupons shall be removed after exposure times of 48 hours, unless otherwise specified. A new set of coupons prepared in accordance with 3.1.1 shall be used during each exposure period. Location of the coupons shall be noted on the data sheet.

## **4. OTHER BUSINESS**

### **A. Current overload**

There is a need for this procedure. Max has requested that a project leader be established. In new mil dwg 89065? And a series of contacts the NAC was involved in and referenced in the blade and tuning fork spec.

The committee has agreed to consider this in the future.

### **B. MIL-DTL-38999 TESTS**

Check 38999 that are not covered by a test procedure. 26482? See what tests are not unique to a specific specification. Consider developing a TP only if it has multiple applications.

This includes adding a vibration sweep method to the vibration TP-28. This is for residence surge. Spelled out in 38999 clause 4.5.23.2.3.

Electrolytic erosion, spelled out in 38999 clause 4.5.35.

Ralph Antonelli has agreed to provide Carl with a list of tests contained in 38999 that are not covered by a test procedure. Carl has agreed to prepare a draft for the next meeting.

# Preliminary Agenda 21 January 2010

## C. EIA-364-91 Dust Test

There appear to be a problem obtaining the dust specified in this standard.

Contact: Jeff Fredericks, (952) 894-8737, [Jeff@powdertechnologyinc.com](mailto:Jeff@powdertechnologyinc.com)

This company is considering making the dust.

### **POWDER TECHNOLOGY, INC.**

14331 Ewing Avenue, South  
Burnsville, MN 55306  
PH: (952) 894-8737  
Fax: (952) 894-0734  
Toll Free: (800) 718-8737

The committee has agreed to take this under advisement if the supplier agrees to make the dust.

Other supplier: Sun Belt has not replied to numerous calls.

Sunbelt Industries, Inc.  
540 East Mill Street  
Little Falls, NY 13365-2027  
Phone: (315) 823-2943  
FAX: (315) 823-4458  
e-mail: [sunbelt@ntcnet.com](mailto:sunbelt@ntcnet.com)  
Contact: Mr. Earl Mannion

ECA (Ed Mikoski) will look into establishing a source page for suppliers on the ECA web page and report at the next meeting.

# Preliminary Agenda 21 January 2010

## 5. NEW BUSINESS

A. SP-5186, Standards Due for 5-Year Review, EIA-364, TP-11, 12, 62, 81, 82, and 91 (Carl Fritz)

### 5 Standards Due for 5 Year review

Test	EIA-364 TP	Rev	Date of last issue	5 Year due date	Years past due	Comments
Resistance to solvents	11	B	June-05	May-10	1	Published Jun 05
Restricted entry	12	A	June-05	May-10	1	Published Jun 05
Terminal strength	62	A	July-04	June-09	1	Published Jul 04
Combustibility characteristics of connector housings	81	A	March-05	February-10	1	Published Mar 05
Corrosivity	82	A	March-05	February-10	1	Published Mar 05
Dust *	91	A	April-05	March-10	1	Published Apr 05

\* See EIA-364-91 under other business paragraph 4.C.

NOTE: Document format up to date on all of the above listed standards for 5-year review.

Respectfully submitted,

Carl Fritz, Chairman CE-2.1