

ENGINEERING PRACTICES STUDY

PROJECT NUMBER: 59GP-2008-008

TITLE:

Engineering Practices Study to Review IPC/JEDEC J-STD-609 Amendment 1 "Marking and Labeling of Components, PCBs and PCBAs to Identify Lead (Pb), Lead-Free (Pb-Free) and Other Attributes"

20 July 2009

FINAL REPORT

Prepared by:

David Corbett

ATTCH 1

I. **OBJECTIVES:** The objective of this study was to obtain from the military users either comments or concurrence on the contents of the proposed amendment to the DoD adopted non-Government standard (NGS), J-STD-609. The subject NGS is published by both the IPC (Association Connecting Electronics Industries) and JEDEC (Solid State Technology Association).

II. **BACKGROUND:** The subject NGS is currently used by DLA to establish the identification marking on the packages of items supplied to DLA military service customers (e.g., repair depots) to differentiate electronic components with Pb finish and Pb free finish. The subject NGS document is undergoing amendment to update the definitions and terms used within and to further define the "e" codes that to designate the elements in solder alloys.

III. **RESULTS:** The subject NGS was distributed by electronic mail message on three different dates to 20 Department of Defense and Government activities requesting their input (comments or concurrence) regarding the contents of subject NGS document. The review cycles were as follows: First coordination was for 45 days, circulated on 28 August 2008; the second coordination was for 30 days, circulated on 9 April 2009; and the third coordination was for 30 days, circulated on 7 May 2009. Comments were received from several activities regarding the proposed restructuring of the "e" codes. The comments were submitted to the NGSB for resolution. DSCC-VAC also participated in several teleconferences and traveled to attend a task group meeting in order to ensure that the Governments comments were included in the issued NGS.

IV. **CONCLUSIONS:** At the NGS document developing committee (IPC 4-34b) meeting for the subject NGS on 22 September 2008, the DoD position and comments about the proposed restructuring of the "e" codes were presented. The committee agreed that the proposed restructuring could not go forward as proposed in the amendment. However, there were several attendees who had great concern with the status-quo of not addressing the issue of newer Pb-free solders that did not fit the current structure of the "e" codes. The committee worked throughout the fall and winter to develop a new draft for coordination. During the next task group meeting on 29 April 2009, DSCC-VAC reiterated the Government's position that existing codes should not be changed in a manner that alters the precedence established by the current "e" codes. After much discussion, the attendees finally agreed upon modifications to the current "e" codes that retained the established hierarchy for the SAC solders, but added a new "e" code and discriminators. The changes to the existing SAC "e" codes were to address "doped" SAC solders.

V. **RECOMMENDATIONS:** DSCC-VAC cast an affirmative ballot on 5 June 2009 for the IPC to publish the subject NGS document with the new changes. DSCC-VAC will continue to monitor the status and progress of the subject NGS document.