Glass

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27 October 1977

MEMORANDUM

To: A. W. Guy, Chairman C95.4 Subcommittee

From: F. L. Cain, Working Group 1 Chairman

Subject: Report on Activities of Working Group 1

This report summarizes the major activities of Working Group 1 (Peak Power Effects) over the past year.

December 1976

The Chairman of Working Group 1 (WG-1) organized and distributed information dealing with the review of literature to all members of the Group. Included in this package was the following information:

(1) An initial procedure for WG-1 to follow for reliability assessment. This procedure outlined the following:
   (a) Initial Culling of Unrelated Articles,
   (b) A Second Check on Culling of Articles,
   (c) Distribution of Selected Items for Review, and
   (d) Reliability Assessment.

(2) Attachment 1 which gave an insight WG-1's immediate mission,

(3) Attachment 2 which was a copy of the handout material that Ed Hunt distributed to the working group Chairmen at the June 1976 Cherry Hill meeting,

(4) Attachment 3 which was an updated version of the Key-Descriptor handout, and

(5) Attachment 4 which was a listing of all WG-1 members.

A copy of the above December 1976 Memorandum, which was sent to the Chairman of WG-1, A. W. Guy, is attached to this report as Attachment 1.

January 1977

The Chairman of WG-1 reviewed the 1964, 1965, 1974, and 1975 packs of abstracts and titles that Ed Hunt distributed to the Working Group Chairmen. The ones potentially applicable to peak power effects were mailed to the members of WG-1. Fifty five (55) potential candidates were selected for review. The ANSI numbers for these 55 articles, the WG-1 members who are reviewing each of these articles, the date the articles were mailed to

the members, and the dates that some members have returned their assessments on each article are given in Attachment 2 of this report.

June 1977

On 23 June 1977 at the San Diego meeting of Working Group Chairmen, Working Group 1 Chairman gave an oral report on the progress of the Peak-Power Group. At this meeting, all of the above information in this report was given. In addition, the above written information concerning the distribution of the 55 articles was left with the C95.4 Chairman.

On 29 June 1977, another memorandum, which included the additional information from Ed Hunt and additional assignments for reliability assessments, was issued by the WG-1 Chairmen to all WG-1 members. The purpose of the additional information was to help members in their job of assessing the review articles. Twenty-two (22) additional assignments of review articles, based on the additional packs of abstracts handed out by Ed Hunt at the San Diego meeting for the years 1975 and 1976, were mailed to WG-1 members. The 22 articles and assignments are included as Attachment 3 of this report.

October 1977

As of 28 October 1977, no additional bibliographic identification sets have been received by the WG-1 Chairman. To date, sets for the years 1964, 1965, 1974, 1975, and 1976 have been received, and all titles and/or abstracts potentially applicable to peak power effects have been distributed by the WG-1 Chairman. Of the 77 abstracts that were considered potentially applicable and were sent out, only 19 of the 77 have been reviewed by 3 of the Working Group 1 members (P.E. Tyler, Leo Birenbaum, and J.C. Toler). These 19 articles are indicated in Attachments 2 and 3.

Three examples (one by each of the three above members who gave inputs to me) of sequential categorical analysis are given in Attachments 4, 5, and 6 of this report. Although it is apparent that each member interpreted differently the meaning of SCANER, there are good points in each type of review. Over all, however, I would suggest that the format of Attachment 6 be used as the "strawman" guide for future reviews.

Several issues must be addressed by Working Group 1. These include the following:

(1) How are the results to be extrapolated to man? Can they be extrapolated?

(2) When should an effect be considered hazardous?

(3) Should only very high peak powers be considered?

(4) Should non-thermal effects be considered hazardous?

(5) Should behavioral effects be considered?

(6) Should the effects already noted in the literature for low peak powers be considered as peak power effects or perhaps as modulation effects?

In the future, some criteria must be established to deal with these issues in order to improve the Safety Standard with respect to peak power effects.