Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of the Commercial Loudness Mitigation (CALM) Act	)	MB Docket 11-93
	)	
	)	
	)	

To: The Commission

Comments of Hammett & Edison, Inc.

The firm of Hammett & Edison, Inc., Consulting Engineers, respectfully submits these comments in the above-captioned Notice of Proposed Rulemaking (NPRM) relating to implementation of the Commercial Loudness Mitigation (CALM) Act. Hammett & Edison, Inc. is a professional service organization that provides consultation to commercial and governmental clients on communications, radio, television, and related engineering matters.

I. Qualifications of Hammett & Edison, Inc.

1. Hammett & Edison, Inc. is well qualified to make comments on this matter, having been involved in TV station design for over fifty years, and having one of its employees serve as chairman of the Advanced Television Systems Committee (ATSC) S3 Specialists Group on Digital ENG (electronic news gathering). The S3 subcommittee was formed in 2004; after completing its mission to create a standard for the data return link (DRL) channels at the lower and upper boundaries of the 2 GHz TV Broadcast Auxiliary Services (BAS) band,[1] S3 was "mission accomplished" deactivated in 2009.

II. The Commission Has Indeed Enforced Its Policy Against Loud Commercials in the Past

2. It is not correct, as stated in Paragraph 3 of the NPRM, that the Commission has not regulated "loudness" of commercials. From at least 1974 through 1982 the Commission's FM/TV/CATV Enforcement Unit vehicles did exactly that, based upon the Public Notice cited in Footnote 7 of the NPRM.[2] We are aware of at least one Official Notice of Violation, issued to a

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1 *Automatic Transmitter Power Control (ATPC) Data Return Link (DRL) Standard*, ATSC Document A/92, 11 February 2008.

2 Statement of Policy Concerning Loud Commercials, Section 73.4075 of the FCC rules.

TV station, citing not only overmodulation, but also the Section 73.4075 rule regarding loud commercials. That violation resulted in the assessment of a monetary forfeiture.[3]

III. Rules Should Apply To Class A TV Stations

3. Footnote 37 to Paragraph 6 of the NPRM would appear to exclude Class A TV stations from the CALM Act, since it defines the CALM Act as applying only to Part 73, Subpart E, full-service TV stations, and not to Part 74, Subpart G, Low Power TV, TV Translator and TV Booster stations. This would appear to preclude Class A TV stations, because such stations are authorized under Part 73, Subpart J, not Subpart E.

4. We submit that it would make no sense to exclude Class A TV stations from the CALM Act requirements, since those stations are Part 73, Subpart J, primary stations, not Part 74, Subpart H secondary stations, and they have local origination programming obligations and EAS obligations. While the CALM Act language would appear to have unintentionally not included Class A TV stations, the Commission has it within its rulemaking authority to make its CALM Act rules also applicable to Class A TV stations. The Commission should do exactly that.

IV. Section 5.2 of A/85 RP Provides Troubling Delegation of Authority To a Non-U.S. Broadcast Standard

5. At Paragraph 8 of the NPRM, the Commission concludes that it has no option but to adopt in its totality the ATSC A/85 recommended practice (RP), *Techniques for Establishing and Maintaining Loudness for Digital Television* (A/85 RP). However, there is a curious provision in that RP, which, so far as we can tell, is unique to all of the ATSC standards and recommended practices: The last sentence of Section 5.2 (*Making Loudness Measurements*) states "Users should utilize the current version of BS-1770 for measurements." Thus, A/85 RP contains language that creates an automatic link to a non-U.S. standard. Normally that would not concern us, but BS-1770, *Algorithms To Measure Audio Programme Loudness and True-Peak Audio Level*, involves psycho-acoustic human response considerations, not just engineering measurements. Since BS-1770 is, in turn, based on a European standard, EBU-Tech 3341, *Loudness Metering: EBS Mode Metering To Supplement Loudness Normalisation in Accordance with EBR R 128*, what is considered too loud to a European listener and/or a non-English listener may result in inappropriate modifications for U.S. listeners. But, because of the

[3] Forfeiture letter was issued on September 17, 1982, by the San Francisco Field Operations Bureau (FOB) office (now the Enforcement Bureau). A copy was obtained pursuant to the Freedom of Information Act.

language in Section 5.2 of A/85 RP, and the CALM Act mandate, modifications to BS-1770 would now, apparently, become automatically linked to mandatory FCC rules.

6. There are two possibly mitigating issues, though. First, A/85 RP Section 5.2 says "should" not "must." There is therefore some allowance for interpretation. Second, at Page 8, Footnote 40, the NPRM states that the Commission "will incorporate future versions of the ATSC A/85 RP as they become available and will publish notice of updates to this incorporation by reference in the Federal Register." Yet at Page 10, Paragraph 13, the NPRM states "... we tentatively conclude that no notice and comment will be necessary to incorporate successor documents into our rules." So which is it? Will there be a notification path, or not?

7. We therefore point out the potential linkage of A/85 RP to BS.1770, and, in turn, the linkage of BS.1770 to its European source. While European spellings of "programme" and "normalisation" are harmless curiosities to U.S. TV stations, the automatic adoption of changes to a loudness standard, with its psycho-acoustic human component, means that a modified loudness algorithm could be inappropriately forced onto U.S. broadcasters (and other "regulated entities"), without ATSC formally modifying A/85 RP. And if there is no formal modification of A/85 RP, then there would clearly be no FCC public notice and Federal Register publication. Broadcasters could then face the dilemma of implementing new loudness software algorithms tweaked for European ears,[4] but perhaps not U.S. ears, or being found in violation of the proposed new FCC Rule Sections 73.682(e)(2), 73.8000, 76.602(b)(10), and 76.607. The Report & Order (R&O) should be written so as to avoid this possibility. Indeed, we submit that the Commission must do this to comply with its obligations under the Administrative Procedures Act (APA), since unlike the DTV Nightlight legislation adopted by Congress in 2009, there is no provision in the CALM Act exempting the Commission from its APA obligations.

V. Not Requiring FCC Certification for Loudness Monitoring Devices Would Be a Mistake

8. At Paragraph 19, the NPRM states

> We do not propose to require equipment authorization through an equipment performance verification procedure or to establish an administratively burdensome or time-consuming process for determining compliance based on satisfying the installation requirement.

[4] At Paragraph 19, the NPRM states "Loudness measurement devices and/or software must be able to measure loudness using the ITU-R BS.1170 measurement algorithm...".

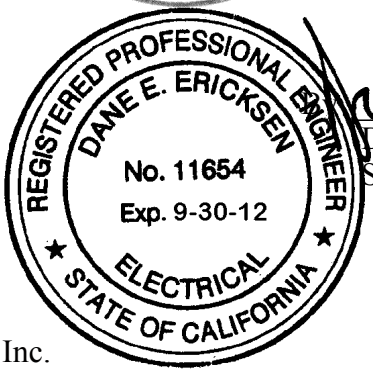
While the equipment certification or verification process may be time-consuming, it is imperative here because of the competitive nature of commercials and their production. By having FCC certification or verification, manufacturers of devices to implement A/85 RP would not have any incentive to "accommodate" possible industry pressures, nor would program origination entities have reason to suggest this, since both parties would know that the hardware would be subject to FCC verification or certification. And while equipment certification or verification may be "administratively burdensome," that is why Congress funds the FCC. Further, we expect that manufacturers of loudness monitoring/limiting hardware would appreciate a "safe harbor" just as much as broadcasters would.

9. Having the Commission act as the unbiased governmental entity certifying or verifying CALM Act compliance hardware would preclude the sorts of abuses revealed in the recently issued May 17, 2011, Video Relay Services (VRS) Fraud Order (CG Docket 10-51). That order contained a truly impressive list of changes to FCC rules that had turned out to allow fraudulent activities. Although VRS involved government payments to private parties, whereas this rulemaking does not, why temp fate and leave open the possibility of coercion that might tempt one manufacturer to gain an unfair advantage over competing products? Thus, the Commission needs to "bite the bullet," and require equipment certification or equipment verification and thus create a safe harbor for CALM Act limiters/monitors.

VI. Summary

10. Class A TV stations need to be also subject to these new rules. The Commission needs to take steps to ensure that modifications to the loudness controlling algorithms originated outside the U.S. are not automatically implemented in the U.S., with no public review. Finally, as the neutral party, the Commission needs to establish equipment certification or verification for hardware that can be used for safe-harbor purposes by TV stations and other entities subject to the CALM Act.

By _____
William F. Hammett, P.E.
President



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