



Docket No 04-AAER-1

Docket Office
California Energy Commission
1516 Ninth Street, Mail Station 4
Sacramento, California 95814-5512

The attached comments regarding the:

NOTICE OF PROPOSED ACTION
Amendments to Appliance Efficiency Regulations
California Code of Regulations, Title 20, Sections 1601-1608

Are submitted on behalf of Robertson Worldwide

By

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Robertson Worldwide is a US based lamp ballast manufacturer located in Blue Island, IL. Robertson has been in the ballast business 54 years. Robertson is a relatively small full line ballast manufacturer, emphasizing specialty applications.

Robertson is a member of the Ballast Section and the Lighting Systems Division of the National Electrical Manufacturers Association (NEMA). Robertson has participated in the preparation of comments on this docket being provided by NEMA. Robertson fully supports these NEMA comments.

We would like to add our own additional company comments regarding the proposed “Standards for Under-Cabinet Fluorescent Luminaire Ballasts”. This is an application which is a market emphasis for Robertson.

We reserve the right to further amplify our comments at a later date, after we have had more time to study. We only became aware of this proposal and the analysis document on October 26, 2004. That may theoretically be irrelevant, but as a practical matter a small manufacturing company such as Robertson does not staff available to review every potential proposed regulation by the US government and all 50 states. We also suspect that many of the manufacturers of office furniture and office furniture lighting fixtures were not aware of this proposal until the week of October 25, 2004.

We object strenuously to the proposed standards, as detailed in Section 1605.3 (n) (4). Our objections are on three cascading levels.

First of all we believe the Commission is prohibited from enacting these proposed regulations by Federal preemption.

Second of all, we believe the proposed regulations are technically unacceptable, and are based on an analysis prepared by Energy Solutions that is factually incorrect and includes many incorrect assumptions.

Thirdly, we believe that the proposed effective date timetable and the compliance confirmation would be extremely disruptive to the fluorescent lamp ballast industry, the under-cabinet luminaire industry and the office furniture industry.

Federal Preemption

There is long history between the Commission and industry regarding this issue resulting in a court ordered injunction preventing implementation of many aspects of the prior revision of Title 20. Robertson fully supports the NEMA presentation on this subject and will not belabor the point.



One item on this subject does bear attention. In Section 4.4 of the support analysis document for this proposed regulation is the statement “A general BEF standard could be established, but this overlaps with the federal efficiency regulation regarding T12 electronic ballasts. For this reason this standards approach should be limited to T8 ballasts, which are not federally regulated.” This is incorrect. The US Department of Energy fully reviewed potential standards for T8 lamp ballasts and decided that the proper solution, for many well documented reasons, was to issue no standards. This proactive decision by the DoE is entirely different from “are not federally regulated”.

Proposed Standards are Technically Incorrect, Based on Faulty Support Analysis

For a variety of reasons we do not believe that the specific proposed regulations are technically sound. Many of the BEF values are technically unsound. The underlying cause is that the analysis document, “Analysis of Standard Options for Under Cabinet Fluorescent Fixtures Attached to Office Equipment” contains many errors, incorrect assumptions and much technical and market information that is unsubstantiated. We will highlight a few of these, and reserve the right to add further comments later. We also point out that perhaps at some later date we can offer alternative data and information, but because of the limited time to prepare these comments we will only point out our areas of disagreement.

The analysis presents no credible source for either market information or performance data. The analysis continually confuses information regarding the general non-residential lighting market and products with information regarding the office furniture lighting market and products. Ballasts used in office furniture lighting are frequently very different from those used most commonly in general lighting. The data sources for much of the information are personal communications with company representatives. While those companies contacted are, respectively, respected competitors and valued customers of Robertson, we believe off-the-record undocumented opinions of individuals are not an acceptable basis for a regulation affecting an entire industry.

The last paragraph of Section 3.1 states that “it appears reasonable to assume that slightly more than half of under cabinet linear fluorescent fixtures are designed for two lamps”. In our opinion, this is an entirely unreasonable assumption. We believe the vast majority, probably much more than 90% are single lamp fixtures.

If we accept the assumption in Sec 3.3 that 12-25% of newly installed T8 office furniture fixtures are magnetically ballasted, and that 240,000 new fixtures are installed per year in California, as suggested in Sec 3.2, and that all are single lamp (a very reasonable assumption in our opinion) and that the annual kwh savings per single lamp fixture are 8kwh, per Table 2, then we arrive at an estimated first year energy savings of 230,000 to 480,000 kwh. This is far less than the 1Gwh shown in Table 3.



All of the discussion in Sec 5.1 regarding incremental ballast costs is entirely based on ballasts commonly used for general lighting, and not on ballasts commonly used in office furniture lighting. This cost information is totally irrelevant and, in our opinion, wrong.

All of the energy savings and Life Cycle Cost analysis is based on the ballast information presented in Appendix A. While the ballasts listed are not identified specifically, some of the specific catalog numbers can be deduced from the fixture watts and ballast factor data tabulated. Again, these are ballasts commonly used in general lighting applications, not those commonly used in office furniture lighting. In fact, several of the ballasts apparently listed will not even physically fit in most office furniture fixtures.

Our review of electronic ballasts for T8 lamps that we believe are commonly used in the office furniture lighting industry shows some meet the proposed BEF levels and some do not. It is our position that, if this regulation were to proceed, the BEF levels must be adjusted, based on input from all concerned parties. It simply is unreasonable to just take published catalog information from ballasts intended for other applications and derive an appropriate BEF level.

The most effective way to save energy in this, and other, applications is by the use of controllable or dimmable ballasts. There is no consideration in this analysis or proposal of dimming ballasts. Dimming ballasts typically have slightly lower BEF values because of the filament heat requirements to maintain proper filament temperatures at reduced light levels. Even though the BEF's are lower slightly the energy consumption is dramatically reduced. Any future proposal must make proper consideration of dimming ballasts.

Industry Disruption

The timing proposed for the effective date of this regulation, Jan 1, 2006, is unrealistic, and would present a significant burden to the industries involved.

First of all, there is no clear information regarding what method of determining compliance would be required or acceptable. The Commission is currently prohibited under federal court injunction from requiring the submission of the type of data that would be used to determine compliance.

Every ballast manufacturer, every office furniture luminaire manufacturer and every office furniture manufacturer would have to sequentially review and change, as needed, all of their product designs and manufacturing. As a practical matter, this cannot be accomplished in the time frame suggested. As a point of reference federal statute requires that any such regulation at the federal level cannot be made effective less than 3 years from enactment. This would be a reasonable and appropriate guideline, were this regulation to be enacted.



Conclusion

Robertson Worldwide supports the position of NEMA regarding this entire proposed regulation.

Robertson Worldwide strenuously opposes the regulation of office furniture luminaire ballasts, as proposed in Sec 1605.3 (n) (4), for all of the reasons described above.

Robertson Worldwide is prepared to cooperate with the Commission on any reasonable reevaluation of this proposal.

Robert W Wisbey PE LC
October 29, 2004