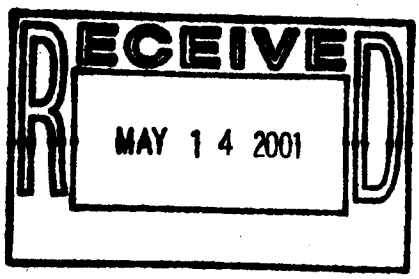
Setting Standards for Excellence

**National Electrical Manufacturers Association**
**1300 North 17th Street, Suite 1847**
**Rosslyn, VA 22209**
703-841-3249
Fax: 703-841-3349
Ric_Erdheim@nema.org

May 11, 2001




Dr. C. W. Jameson
National Toxicology Program
Report on Carcinogens
MD EC-14
PO Box 12233
Research Triangle Park, North Carolina 27709

Re: Public Comments on Nominations from the Report on Carcinogens, Tenth Edition

Dear Dr. Jameson:

The National Electrical Manufacturers Association (NEMA) Lamp Section represents US manufacturers of lighting products. The Lamp Section members have an interest in the proposals regarding UV.

NEMA believes that the evidence is quite strong that sufficient exposure to UV-B will increase the risk of nonmelanoma skin cancer, and the "known" status for UV-B is justified. NEMA also believes that the listing of UV-C as "reasonably anticipated" to cause cancer is justified.

With regard to the listing of UV-A as a carcinogen, NEMA believes that a designation of "possible" is justified. A rather arbitrary mathematical function based on very limited evidence has been used to define a UV-A action spectrum for cancer. This action spectrum was continued to the nominal upper wavelength limit of UV-A for a purpose, i.e., to avoid leaving this region of uncertainty undefined and possibly open to exploitation (CIE 138/2-2000). However, the evidence for the UV-A band is nowhere near as strong as for UV-B and UV-C.

It is not known if there is a long wavelength cutoff for the action spectrum or if it is an asymptotic function. At what wavelength can you justify a cutoff? UV-A is a wide spectral band from 315 to 400 nm, almost half of the UV spectrum above the vacuum UV. Possibly the risk label should disappear somewhere in the lower part of this range as being vanishingly small. Much more needs to be known before the NTP applies the "reasonably anticipated" standard to UV-A *in toto*. Certainly there are known undesirable consequences to excessive exposure to UV-A, but the proposal to include cancer, especially over the entire range, is questionable.

A person is much more likely to be at risk due to UV-B (e.g., continual exposure in the sun) than be at risk due to UV-C where one decent exposure normally cures a person of further significant UV-C exposures. If the risk in the UV-A becomes sufficiently small at some point below 400 nm, the label of carcinogenic is counterproductive and can divert attention and energy from the meaningful risks. While even a very small risk does have to be identified as carcinogenic, the evidence for doing this should be reasonably unequivocal. One of the great difficulties with the all-or-nothing approach of categorizing UV as a single entity is exemplified by the fact that table salt also is a known and fatal poison --- it's all in the dose.

NEMA appreciates the opportunity to provide comments on this proposal.

Sincerely,

[redacted]

Ric Erdheim