

David K. Rehr
President and CEO



October 28, 2008

The Honorable Kevin J. Martin
Chairman
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: *In the Matter of Unlicensed Operation in the TV Broadcast Bands,*
ET Docket Nos. 04-186, 02-380

Dear Chairman Martin:

I am writing again today to urge you and your colleagues to consider the serious disruption to vital television service if millions of unlicensed devices are authorized to operate in the spectrum surrounding the channels used by local stations to provide emergency information, news and entertainment to the public. As we explained in our more detailed filing today,¹ broadcasters are especially concerned that the Commission is poised to approve final rules for white space devices based on a report by the FCC's Office of Engineering and Technology (OET) that omitted relevant data, failed to answer a number of important questions, and was not properly peer-reviewed or released for public comment.

Today's filing also identifies a number of specific questions and omissions that must be addressed before the Commission moves forward. In particular, I emphasize that the following questions should be posed regarding the OET report and the purported technical rules for white space devices:

- The OET tests of prototype white space devices did not show that spectrum sensing was a reliable technique for determining channel occupancy by television stations or wireless microphones. Therefore, how could sensing alone be used as an effective interference mitigation tool for white space devices? Similarly, if the OET report shows that geolocation with a trusted

¹ See MSTV and NAB, *Reply to Opposition and Addition to Request for Relief*, ET Docket Nos. 04-186 and 02-380 (Oct. 28, 2008).

database is a potentially workable basis for white space device rules, why use geolocation-plus-sensing capability in lieu of the simpler geolocation technique alone?

- Given the evidence in the technical record, how can the proposed sensing threshold of -114 dBm provide adequate protection to the television service from interference?
- What evidence or analysis in the technical record or the OET report justifies the proposed 40 mW power limit for white space device operation on first adjacent channels? Explain how a 40 mW power limit is consistent with the evidence that is in the technical record showing that operation on adjacent channels should be at much lower power levels and in fact should not be allowed at all in order to fully protect television service.
- Based on the results of the OET field tests, will the proposed power limits for unlicensed white space devices cause interference to cable television service? How are these power limits consistent with principles governing technical rules developed for Part 15 devices?
- There is no justification in the technical record or the OET report for the FCC basing rules on the general assumption that interference from an unlicensed white space device to a digital television (DTV) receiver at 10 meters or closer can be disregarded. Especially with the advent of mobile DTV reception, close juxtaposition of white space devices and DTV receivers is likely. How can the FCC justify such assumptions when it has realized in other services with mobile receivers that a much smaller separation distance, such as two meters, is more appropriate?

Given these omissions and unanswered questions, the Commission should not proceed on November 4 to adopt final rules authorizing white space devices. Before approving these devices that would have a profound impact on the public's access to television broadcasts, both over-the-air and on cable, the Commission must pause to ensure that it acts only on the basis of reliable and properly peer-reviewed and vetted technical evidence.

Broadcasters again want to emphasize that we do not oppose the use of vacant channels in the television broadcast bands. We support the concept of geolocation in combination with an accurate database as a method of avoiding interference with television broadcasts and wireless microphones. However, spectrum sensing alone, as the data within the OET report actually show, does not provide adequate


The Honorable Kevin J. Martin
October 28, 2008
Page 3

interference protection. It is vital that the Commission properly evaluate the potential for significant harm to the public's reception of television before approving the operation of white space devices.

Thank you for your consideration.

Best wishes.

Sincerely,

A handwritten signature in black ink, appearing to read "D. K. Rehr". The signature is stylized and written in a cursive-like font.

David K. Rehr

cc: The Honorable Michael J. Copps
The Honorable Jonathan S. Adelstein
The Honorable Deborah Taylor Tate
The Honorable Robert M. McDowell