

Doc. 95-42

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RECEIVED

MAY - 9 1995

BY HAND

Roy J. Stewart, Chief  
Mass Media Bureau  
Federal Communications Commission  
1919 M Street, N.W., Room 314  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

Dear Mr. Stewart:

On behalf of Yes! Entertainment Corporation ("Yes!"), this letter requests confirmation that the following proposed use of the active video to provide signalling information in conjunction with an interactive toy would not be inconsistent with Commission rules and policies.

Yes! has developed a teddy bear toy, "TV Teddy," that will have the ability to respond by voice at periodic intervals during certain programs that would be broadcast on television. The voice of TV Teddy would be activated by encoding a signal into these programs. The signal would be encoded in the active video portion of the broadcast transmission, immediately adjacent to but not within the horizontal blanking interval. The signal, which would measure only 1.38 microseconds, is designed to take advantage of the "overscan" characteristic of television receivers, i.e., the portion of the active video that is not visible on the receiver.

Preliminary tests by Capital Cities/ABC, Inc. have confirmed that the TV Teddy signal will be invisible and inaudible to the television viewer, with or without use of the toy. As noted above, Yes! has limited the TV Teddy signal to only 1.38 microseconds. In the tests, the signal was invisible and inaudible on a representative sample of four different models of television receivers even when simulating a signal of 1.5 microseconds. The signal was only barely observable even when further expanded to 3 microseconds, and even then on only one out of the four sets.

As the Commission has concluded, the signalling information used to interact with toys "must be an integral part

of the program presented." Revision of Programming and Commercialization Policies, 2 FCC Rcd 6822, 6826 (1987). In other words, it must be "integrated into the programming in a way that does not detract from normal viewing." Id. Since tests demonstrate that at 1.38 microseconds the TV Teddy signal will be completely invisible and inaudible to the viewer, we believe that it complies with this requirement. In this respect, its encoding of audio tones in an unused part of the active video is similar to three other proposals previously approved by the Bureau for interactive toys, involving either the encoding of audio tones onto the normal soundtrack or the encoding of visual signals into the storyline.<sup>1/</sup> On the other hand, the Yes! proposal is significantly different from the one proposal disapproved by the Commission, which involved a "small white square, appearing occa[s]ionally, [in] the active program portion of the television visual signal."<sup>2/</sup>

As noted in these prior Bureau rulings, the Yes! proposal would also further the Commission's mandate to "generally encourage the larger and more effective use of radio in the public interest." 47 U.S.C. § 303(g).<sup>3/</sup> It would "add to rather than subtract from the diversity of programming choices now available," and also hold the potential for "development of other beneficial informational, educational and entertainment uses." Id. at 6826. For example, Yes! currently has follow-on plans to develop an answer box for children's programs, which would create interactive educational opportunities through this new technology.

Thank you very much for your consideration of this matter. Subject to confirmation that its proposal is not inconsistent with Commission rules and policies as reflected in these earlier Bureau rulings, Yes! hopes to begin promoting potential broadcast uses of "TV Teddy" promptly, in connection

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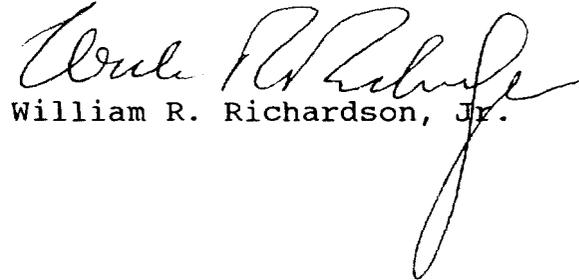
<sup>1/</sup> See 2 FCC Rcd at 6826, 6829 n.39, citing Letter from Chief, Mass Media Bureau to Charles H. Helein, Aug. 5, 1986. See also Letter from Chief, Mass Media Bureau to Robert L. Pettit, Oct. 30, 1986; Letter from Chief, Mass Media Bureau to Brian Owens (undated).

<sup>2/</sup> Letter at from Chief, Mass Media Bureau to Robin D. Leyden, Oct. 10, 1986, cited at 2 FCC Rcd at 6829 n.40.

<sup>3/</sup> See also 47 U.S.C. § 157(a) ("policy of the United States to encourage the provision of new technologies and services to the public"). For examples of Commission decisions encouraging other uses of broadcast frequencies that do not affect the primary service, see TV Captioning for the Deaf, 39 R.R.2d 299 (1976); Transmissions in the Vertical Blanking Interval, 61 R.R.2d 66 (1986) (teletext); Transmission of Three-Dimensional (3-D) Programming by Television Broadcast Stations, 51 R.R.2d 661 (1982).

with the upcoming holiday season. Accordingly, it would very much appreciate a prompt ruling if at all practicable.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "W. R. Richardson, Jr.", written in black ink. The signature is fluid and somewhat stylized, with a long, sweeping tail on the final letter.

William R. Richardson, Jr.

cc: Douglas W. Webbink

November 4, 1993

YES! ENTERTAINMENT CORP.  
"TV Teddy"

- I. TV Teddy Signals Are Integrated into and Indistinguishable from the Active Video Portion of the Signal
  - A. TV Teddy uses sampling of the horizontal lines to encode audio information in the far left portion of the active video. It is a 1.38 microsecond signal that lies immediately adjacent to but not within the horizontal blanking interval. It is designed to take advantage of receiver "overscan" that results in non-use of a portion of the active video.
  - B. Preliminary tests by CapCities/ABC confirm that TV Teddy will be integrated as an indistinguishable part of the primary television service. To be conservative, the TV Teddy signal has been limited to only 1.38 microseconds. In the tests, no adverse affects were experienced on any of a representative sample of Sony and Zenith receivers even at 1.5 microseconds. (In fact, these tests demonstrated that the TV Teddy signal was only barely observable even when the test simulated a 3 microsecond TV Teddy signal, and only on one out of four sets even at that width.)
  - C. TV Teddy is fully consistent with the television transmission standards of Section 73.682.
- II. Based on Prior Commission Rulings, The TV Teddy Signal Would Not Conflict with Commission Broadcast Rules or Policies
  - A. The signal is not a complement to but "integrated into the programming in a way that does not detract from normal viewing." Thus, programs are accessible to all regardless of whether they possess the toy. Revision of Programming and Commercialization Policies, 2 FCC Rcd 6822, 6826 (1987).
  - B. Axlon makes clear that in such circumstances the secondary interactive purpose is permissible. In that case the system employed notch filtering alternating the sound track of the cartoon program 30 db at 3-5 KHz while maintaining the tone 2db above the sound track. Here, the change will be completely invisible.
  - C. As in Pettit, the encoded signals will be "indistinguishable from the normal pictures."

- D. The "special signals" policy is not implicated, because TV Teddy is not a signal "related to broadcast operation." John Quale, 96 F.C.C.2d 898, 899 (1984).

III. FCC Policy Encourages Efficient Spectrum Use and Innovation.

- A. Axlon emphasizes the Commission's mandate under Section 303 of the Act to "[s]tudy new uses for radio . . . and generally encourage the larger and more effective use of radio in the public interest."
- B. The Commission has historically encouraged new uses of the television signal.
  - 1. TV Captioning for the Deaf, 39 R.R.2d 299 (1976).
  - 2. Transmission in the Vertical Blanking Interval, 61 R.R.2d 66 (1986) (teletext).
  - 3. Three-Dimensional Programming by Television Broadcast Stations, 51 R.R.2d 661 (1982).
- C. As the Commission has recognized, interactive toys add to diversity of program choice, and hold the potential for "other beneficial informational, educational and entertainment uses." 2 FCC Rcd at 6826.

IV. Need for Prompt Clearance

- A. Plan is to launch the program on December 11.
- B. Promotion is being deferred pending FCC review.

All (4) interactive toy  
responses

8308

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

OCT 30 1986

IN REPLY REFER TO:

Mr. Robert L. Pettit  
Wiley, Rein & Fielding  
1776 K St. N.W.  
Washington, D.C. 20006

Dear Mr. Pettit:

**This is in response to your letter of October 7, 1986, requesting confirmation that a client's proposed system for activating remote objects such as toys from television broadcasts does not conflict with Commission policy. You indicate that the technology used in this system is similar to that of the Axlon system, which we previously found would not conflict with the Commission's rules. However, you state that your client's technique differs from that used by Axlon in that it uses visual, rather than aural, signals integrated into the storyline to activate the remote objects.**

As you know, other parties have developed systems that use tones encoded on the television audio signal to control remote devices. The tones used by these systems are integrated into the normal program audio in a manner such that they are an integral and indistinguishable part of the primary television service and, therefore, are intended for use by all viewers. We have found that there is no bar in either the Communications Act or the Commission's rules to broadcast a program that includes encoded tones that are an integral and indistinguishable part of the normal soundtrack, but also serve a secondary purpose. Inasmuch as we have found that the use of these audio systems are acceptable under the Commission's rules we could, therefore, approve the use of video systems where the coded information was integrated into the storyline.

To the extent that the encoded visual signals you describe would be indistinguishable from the normal pictures associated with the program's storyline and, therefore, "integral to the program itself," use of your client's system would not appear to conflict with any of the Commission's broadcast rules or policies. Additionally, because the video signals are not special signals, the Commission's special signal policy would not be invoked.

This opinion, of course, does not constitute any Commission endorsement of the system you have described. Moreover, since you have provided no specific information concerning the manner in which the visual signals are to be integrated into the normal television video signal or program, it is not possible to state whether any particular program that used your client's system would comply with the standards set forth above. That is a determination that would have to be made by those broadcasting the program in the first instance.

I trust this is responsive to your inquiry.

Sincerely,

(SIGNED) James C. McKinney

James C. McKinney  
Chief, Mass Media Bureau

SRoberts/sr/PAB/PRD/MMB  
typed 10/24/1986

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

OCT 10 1986

IN REPLY REFER TO:

Mr. Robin D. Leyden  
8387 Denise Lane  
Canoga Park, California 91304

Dear Sir:

This is in response to your letter of September 13, 1986, regarding a video system for interaction of video programs with other products. As described, this system would encode a small white square, appearing occasionally, onto the active program portion of the television visual signal. In your letter, you request an evaluation of the system to confirm that its use in broadcast television programming would not conflict with any of the Commission's rules or policies.

Under Sections 73.653(a), 73.681, and 73.1745 of the Commission's rules, use of the active video portion of the broadcast television signal is restricted to television service. These rules do not permit transmission of data or other signals not intended as a part of normal television service on either the audio or video components of the active program signal. In this respect, we consider signals to be an integral part of normal program service if they are intended as part of the service provided to audiences using normal audio/video capable receivers.

As described in your letter, the signals of your system are coded information intended to activate a remote device. These signals are not intended for use by viewers not using a remote device and, therefore, are for purposes separate and distinct from normal television service. In this respect, the signals of your system are complimentary, rather than integral to, the authorized television service.

The Commission has authorized television stations to encode certain types of "special signals" onto the television active program signal, however these signals are limited to purposes related to broadcast operation and are not intended for use by the general public. In addition, such signals must not interfere with or otherwise degrade primary television service. See, Public Notice, 22 FCC 2d 779 (1970). As the system described in your letter offers a supplementary service intended for the public rather than a purpose related to station operation, it would not qualify as a special signal.

On the basis of the above considerations, we find that the signals for the remote operation of devices you discuss would not be permissible on the television active visual program signal.

For your information, other parties have developed systems that use tones encoded on the television audio signal to control remote devices. The tones used by these systems are integrated into the normal program audio in such a manner that they are part of the primary television service and, therefore, are intended for use by all viewers. We have found that the use of these audio systems are acceptable under the Commission's rules and could, therefore, approve video systems where the coded information was integrated into the storyline in some fashion.

In examining the nature of your system, we also observe that the Commission has authorized the use of subcarriers on the television aural baseband and telecommunications signals on the vertical blanking interval intended for broadcast and nonbroadcast purposes. See, 49 FR 18100, April 27, 1984 and 50 FR 4658, February 1, 1985, respectively.

I trust this is responsive to your inquiry.

Sincerely,

(SIGNED) *James C. McKinney*

James C. McKinney  
Chief, Mass Media Bureau

SRoberts:sr:PAB:PRD:MMB  
typed 10/9/86

FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

IN REPLY REFER TO:

Mr. Brian Owens  
Brisun Entertainment Group  
34-12 36th Street  
Astoria, N.Y. 11106

Dear Mr. Owens:

Your letter of August 21, 1986, to Mr. Frank Rose of the Commission's Office of Engineering and Technology, has been referred to the Mass Media Bureau for reply with respect to its request concerning transmission of audio tones in television broadcasts to control the C.H.U.M. robot. In your letter, you request confirmation that broadcasting of a program that includes such tones does not conflict with any of our regulations. Your attached description of the robot system indicates that the audio control tones would be hidden in the soundtrack and, therefore, indistinguishable from the audio of the program itself.

A review of the Communications Act and the Commission's rules reveals no bar to the broadcast of a program that includes encoded tones that are an integral and indistinguishable part of the normal soundtrack, but that also serve a secondary purpose. Additionally, because the tones, as described in your brochure, are not special signals, the Commission's special signal policy would not be invoked. See "Public Notice", 22 FCC 2d 779 (1970). We also believe that broadcast transmissions of the hidden beeper signals described in your letter would be consistent with the Commission's mandate under Section 303 of the Act to "(s)tudy new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest."

In view of the fact that the tones as you describe would be an integral part of the television program service, the proposed system would not appear to conflict with any of the Commission's broadcast rules or policies. However, I wish to emphasize that this opinion does not constitute an endorsement, or otherwise indicate any position on the part of the FCC, with respect to the use of the system described in your letter in connection with broadcast television service. In addition, the opinion rendered herein applies only to use of the C.H.U.M. system in the manner described above. Other uses of this technology in a broadcast context may raise regulatory issues beyond those examined in this response.

Sincerely,

James C. McKinney  
Chief, Mass Media Bureau

SRoberts:sc:PAB:PRD:MMB  
typed 9/12/86

S. Roberts  
8308

AUG 5 1986

Mr. Charles H. Helein  
Dow, Lohnes & Albertson  
1255 23rd Street, N.W.  
Washington, D. C. 20037

MAIL BRANCH

AUG 5 1986

Dear Mr. Helein:

signed by  
mailed by

This is in response to your letter of April 18, 1986, on behalf of Axlon, requesting Commission confirmation that a system for the remote manipulation of objects by encoded tones in television programming would not conflict with the broadcast television rules. The Axlon system would employ audible tones within the sound track of syndicated cartoon programs to activate and control toy figurines representing characters in the programs. You indicate that the audio tones would be indistinguishable from the sounds associated with the storyline and, therefore, are "integral to the program itself."

A review of the Communications Act and the Commission's rules reveals no bar to the broadcast of a program that includes encoded tones that are an integral and indistinguishable part of the normal soundtrack, but that also serve a secondary purpose. Additionally, because the tones, as described in your letter, are not special signals, the Commission's special signal policy would not be invoked. See Public Notice, 22 FCC 2d 779 (1970). We also believe that the Axlon transmissions would be consistent with the Commission's mandate under section 303 of the Act to "(s)tudy new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest."

In view of the fact that the Axlon tones as you describe would be an integral part of the television program service, the proposed Axlon system would not appear to conflict with any of the Commission's broadcast rules or policies.

Sincerely,

(SIGNED) James C. McKinney

James C. McKinney  
Chief, Mass Media Bureau