

1 to see you reject the tower. We just don't want to worry about whether we are
2 living in this pristine area and actually contracting something we are not real
3 aware of and I thank you.

4 HOLLOWAY: Okay, any questions? Thank you.
5 Paradise Hills?

6 GROENEWEG: Hi, my name is Kevin Groeneweg. I am president of
7 Paradise Hills.

8 HOLLOWAY: Kevin, I think you need to move that up.

9 GROENEWEG: Hi, my name is Kevin Groeneweg. I am president of
10 the Paradise Hills Homeowners Association. I learned about this problem in
11 January of this year. Since then I have put quite a bit of time and effort into
12 researching going through different matters. By coincidence I happen to have
13 been following the wireless telecommunication industry. I have a background in
14 finance. I have served as senior officer for the Janus Funds. I have served as
15 C.L.O. for another large investment advisor. I am president of
16 still another. I, also, since mid-80's been involved with telecommunication
17 projects of various types including fiber optics, cable capacity, L and DS satellite
18 and a compression and DSL capacity over twisted pair. I got involved primarily
19 because of some of the representations I heard being made that there were no
20 alternate sites and no other technologies available and that is absolutely
21 incorrect. Richard, you asked in the earlier questions of one of their presenters is
22 whether or not there were other technologies available. Your question was
23 slightly, slightly not as precise and they jumped all over it and gave the

1 impression that there is no booster technologies or anything else. That's
2 absolutely incorrect. There's translators boosters, repeaters, a variety of different
3 technologies that are available.

4 HOLLOWAY: I don't think anyone can really hear you, if you could
5 please speak up even though you are speaking into the mike, just amplify it a
6 little.

7 GROENEWEG: Sure. If you look at the diagram I've got on. The old
8 way of doing things was to use a large high power tower and that's again the
9 proposal right here. That is truly the old way of doing things. There are though,
10 various alternatives to providing coverage, geographic coverage. The shadowing
11 problem that has been referred to, for example the representation that that there
12 would be 130,000 people that would not have digital television service is
13 incorrect. There are a number of alternative mechanisms by which people can
14 receive coverage through the broadcast media itself if not through other
15 competing technologies. You have cable, fiber, DSL which is basically telephone
16 lines. Everybody has it and the capacity is increasing all the time. Within the
17 next couple of years these are very viable mechanisms for delivery. Cable is
18 already a viable mechanism for delivery. Satellite is also available. Satellite in
19 Conifer for example of local broadcast stations already available and it's
20 available in other places and/or will be soon. They complain that it is on the
21 national level by the end of this year it's expected by industry estimates that
22 satellite will be able to carry local channels. You also have the ground base
23 satellite systems, L and DS and a variety of other multi-gigahertz. The

1 broadcasters also haven't mentioned to you that the FCC is auctioning off within
2 the next 6 months the Channel 60 channels, again for data coverage. You have
3 a variety of wireless mechanisms coming. But in addition to that you have low
4 power boosters, repeaters, translators and amplifiers, some using equipment not
5 more than six feet tall and some not costing more than 100,000 dollars to deploy.
6 These are alternatives that can be used in conjunction with or in conjunction with
7 the other technologies and again technological solutions do exist. We also have
8 alternate sites. There are a number of alternate sites. And Lookout Mountain is
9 a highly problematic site for a variety of reasons. The main being it's the
10 mountain community behind and the multi-pathing in Golden area compounds
11 the problems down there. The problem extends up and down along the front
12 range right here and it affects basically 15 to 20,000 people easily in this
13 geographic area. That's a lot of people and it's a problem that's avoidable and
14 unnecessary. There are remote peaks. You heard the broadcasters experts talk
15 about height being everything. If height is everything you have taller peaks
16 throughout the front range. This is just an example that your GIS prepared for
17 me of peaks along the front range. The map itself extends something like eight
18 feet but I mean the relevant portion or just one specific portion is Lookout
19 Mountain. It's the lower level black line in the middle. Squaw Mountain's behind
20 it on the top level black line and you have El Dorado over to the other side. All of
21 the peaks are much higher but in addition to those peaks you have various other
22 peaks both up and down the front range that both have towers on and do not
23 have towers but could otherwise be utilized for this purpose. To suggest that

1 there are no alternate sites and really more repulsively to not even provide data
2 about these other alternate sites is unacceptable and basis for denial I believe in
3 and of itself. The information that I have seen relative to alternate sites have
4 used some pretty subtle tricks. They have changed the power level by reducing
5 the power by a factor of 90%. They have also asserted for example that there is
6 no capacity to provide or no ability to move further west for example on some of
7 the peaks. They noted for example in their earlier testimony that Squaw had a
8 problem with getting stations or that they would have stations located too close
9 together. They failed to note to you however that they can go, that they can go to
10 the FCC and ask for waivers for short line spacing. They have also failed to
11 indicate that digital TV and FM channels do not go through rock. We have a rock
12 wall between us and Vail and a variety of other places, it's called the Continental
13 Divide. And not a whole lot of problem exists with that particular situation. There
14 are waivers they can obtain with regard again to short spacing. There are also
15 abilities that they can or they can also go to the FCC and ask for additional
16 extensions. There is no November 1, mandate that this has to be approved at
17 this site at this time. In fact if you go to the National Associative Broadcaster
18 meetings for example the broadcasters are basically complaining and whining
19 about the deployment of digital TV and how it won't make them any money.
20 This, I hope I show you, has nothing to do necessarily with deployment of digital
21 TV. The community, the greater Denver area can receive digital TV from a
22 number of alternate sites and through a number of alternate technologies. This
23 is about rezoning 80 acres on top of Lookout Mountain and it doesn't have to

1 happen. Another frustrating comment at NAB is that the broadcasters really,
2 there's even an article headline to the effect that being last isn't all bad. They're
3 almost, outside of this room, they're dragging their feet. When they come here
4 they talk about a November 1 mandate. It is absolutely inappropriate. Going
5 back to November 1 they can ask for additional time. None of them to date has
6 done so. None of them to date has seriously shown up at any of the Jeffco
7 Economic Council meetings to discuss alternate sites. When we did press them
8 at the last Jeffco meeting, the first meeting nobody attended, second meeting
9 when a few people attended, the Channel 4 chief engineer acknowledged that
10 technological alternatives do exist to overcome the shadowing problem. That
11 comment is consistent with the recent statement made by CBS Vice President of
12 Engineering of Advanced Technologies. He noted that Digital Television can be
13 received throughout a wide coverage area and technology exists to reach the
14 audience without the cliff effect occurring. They're making references, they're
15 making references repeatedly to the cliff effect and purported problems. In terms
16 of the ultimate sites as mentioned earlier they have, you have potential to put
17 towers on the eastern plains. You have potential to put towers on more remote
18 locations in the mountain area. (I'm sorry.) You are having a hard time reading
19 that but, I will give you a copy but that's what it does say. Digital television can
20 receive throughout a wide coverage area. Technology exists to reach audiences
21 without the cliff effect in, in occurring. The long and short is a lot of folks are
22 finding out that this cliff effect that they talk about is not near as serious as what it
23 is. In fact, broadcasting from the eastern plains they have a real hard time

1 whiting out their signal off the front mountains which they would assert and
2 complain about, that's the digital signal coming off the eastern plains. From the
3 other remote peaks they can use towers on the remote peaks coupled with for
4 example repeaters, boosters, translators, that type as well as deployment or as
5 well as providing service through cable companies, satellite companies and
6 others to make sure that nobody has or does without, goes without digital TV.
7 There is one other thing that somebody asked me to clarify. The testimony last
8 time got pretty complicated with regard to some of the medical information.
9 There was a chart that was prepared earlier and I had the great pleasure of also
10 traveling to D.C. and meeting with the FCC and the EPA and a variety of other
11 agencies. Talking with the EPA in particular they noted that the I Tripoli which
12 the Lake Cedar Group has made so much of is truly more of an industry related
13 trade group, but more importantly than that, their database is about 15 years old.
14 If you look at the current manuals you will not find in any of the bibliographies any
15 data from the last basically 10 years for sure, maybe 15 years or more. The
16 database omits a lot of what is going on. The new standards that are coming out
17 in the year 2000, somebody was talking about they're still not reflecting some of
18 the stuff that is most current. Some of the most current stuff the Department of
19 Energy in the last six months released a study that low powered towers are, radio
20 waves in the lower frequencies can be a potential percentage and you have got a
21 number of other studies. You have heard from Dr. Lai. The EPA referred me to
22 a Dr. Addie. When I told Dr. Addie the level of emissions we had running up
23 here, Dr. Addie was referred to me by the EPA as basically the Federal

1 Government's Consultant of choice, so to speak. That individual, however, did
2 not want to testify, didn't want to testify and be pressured by the broadcasters.
3 He has been sued before. But anyway, going on when I told him the level of
4 emissions that we had up here he goes "Oh, my". And you know when I talked to
5 the EPA and I told the EPA the level of emissions up here they go "Oh, my. Do
6 you realize the last study that we've done the average national or the national
7 median average of the emissions is .005? We're running 1 to 10, they net the
8 median average as .005. With the levels we've got up in Lookout Mountain in
9 particular running 1 to 10, the 10 level is 200,000% of the national median. That
10 is just way too high. We're taking unnecessary risks. There are alternate sites
11 and alternate technologies and I'd ask that you turn this proposal down. Thank
12 you very much.

13 HOLLOWAY: Thank you. Before we go on, anybody that is
14 standing in front of the doors, we need the doors to be cleared. So, you may
15 want to come down and find a seat. There are some seats sprinkled around
16 here...so. Okay, Riva Chase.

17 LAWRENCE: Good evening. My name is Joy Lawrence. I am at
18 759 Kachina Circle in Golden. I am the president of the Riva Chase
19 Homeowners Association, approximately 135 homes now have developed in
20 Riva Chase. I don't have any charts or graphs to show you tonight. Many other
21 people tonight and prior to this have presented studies, arguments and data far
22 more eloquently and convincing than I could. You should certainly be aware by
23 now that the residents of this entire mountain community are united in their