Dr. TAPE. One of the byproducts of our business has been increasing cognizance on the part of the medical and dental raidologists, X-ray technicians, the people in the field, both on the user side and on the equipment supplier side. I think the question of X-ray exposure has received much attention and, as such, is being looked at in a very concerted way.

Mr. DADDARIO. Because the patient does not know, as Dr. Lieberman says. It is important for those who are handling the equipment involved to understand the situation to the highest degree. The indication is not just from you, of course, but from others that this is not the case.

Dr. TAPE. Actually, Mr. Chairman, I think the situation here is that levels which have been established for what you might call the manmade radiations have tried to take into consideration that the general public does receive X-rays in a medical diagnostic, or therapeutic way, and the standards do take into account some average value that might be concerned there. So that on the average these levels have tried to reflect that.

Now, what this does not do is address itself to the individual who is undergoing some rather drastic radiation therapy. This is a matter of judgment on the part of the doctor and his patient as to what is right for the patient under the circumstances.

The philosophy behind all radiation exposure is that there be some kind of a risk-benefit evaluation. The levels have been set as low as they have for the general public because it is felt that the risk at that level is far less than the benefits that are being achieved by the presence of, say, nuclear reactor plants or other applications.

On the other hand, an individual may be given a very high exposure to radiation for medical reasons if his doctors believe that such treatment is required to cure a serious malady. In this case the benefit is the possible cure of the malady and this may be much larger than the risk from exposure to radiation. This is the kind of evaluation that one makes. I think you and I mentally do this every time we may be asked "Do you want another set of dental X-rays?" And you think back as to when you had the last set and maybe you say "Yes," and maybe you say "No." So it is in that context that I think we are all much more conscious of the situation.

Mr. DADDARIO. I remember when I had the last one. But as I listen to you, I wonder when I am going to get the next one.

Dr. TAPE. Improvements are being made. Here we know those X-rays can help us, they can find things that need to be cured, so we make our decision as to how frequently this needs to be done.

Mr. DADDARIO. Commissioner Tape, I think that is all well and good. Yet, it does not take into consideration the millions of Americans who do not go into this process of whether to cure or not, but who just go from day to day doing what they have to do and are X-rayed when the doctor says they ought to be, for teeth or anything else. They take whatever dosages are imposed upon them. Somehow, I would think that to be the general case and I would suspect that that would be the kind of research that you would feed into your own requirements. It would seem to me to be dangerous for you to do otherwise.