Ruth Brinston/IMRP

Conference participants at the IMRP exhibition hall, where many irradiation companies had informational displays.

Radiation Roundup

A selection of responses from conference attendees to Ilko Dimov's "roving reporter" questions on radiation.

Question: What is the most common misconception people have about food irradiation?

One misconception the general public has, is not knowing the difference between radiation and radioactivity. There's a big difference! When we are using radiation in all of these applications, the radiation is imparted, and as soon as the process is complete, there is no more radiation.

If I irradiate a product, I get the desired effect, but I don't have any radioactivity in the product. So if you irradiate a polymer, or a fruit, or a medical device, you deliver the radiation dose and it does have some effect—killing insects, or killing microbial populations. But the radiation finishes as soon as the process is completed.

There are rules and regulations in our industry for the types of materials that can be irradiated. For example, the higher the atomic number of the material that you are irradiating, the greater the chance that you can turn something radioactive. And so things like copper and some other things cannot be irradiated with the types of modalities that are used here.

What we are measuring (with dosimeters) is the amount of radiation dose that is delivered by the process; once that measurement is confirmed, we know how much dose is delivered, and there is no more.

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Question: We constructed a cloud chamber in our office with dry ice, and inside the chamber you can see the cosmic rays. So we are bombarded with radiation.

In some places in the world, the background radiation may be six times higher because of the rock formation, so this whole argument about "zero radiation" is not possible.

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Question: What is your vision for the future? Will we see more irradiated products on the market?

That's our hope. But the perception the public has is not a good one. In the early days of atomic energy, I think the governments were afraid to let the information get very far out, so they made it sort of secretive. . . .

And then people remember Nagasaki and Hiroshima, so there is "the terror" as we call it, when we do risk factor analysis. Because in the public perception, fear of death from radiation is somehow much worse than from natural gas.

If a natural gas pipeline blows up and kills 20 people, its just an "unfortunate" incident, but if 1 person were to die from a radiation overdose, oh my god, it's so much higher in magnitude in the public mind.

So you have to deal with this. How do you transmit the knowledge to the public in a way that they can perceive and understand that this is safe?