

Carbon-14 Said To Pose Threat To Living, Future Generations

By DELOS SMITH
UPI Science Editor
New York (UPI)—Don't fast-shuffle the carbon-14 produced by hydrogen and atomic bombs—it poses a much greater threat to living and future generations of mankind than widely publicized strontium-90 and other bomb "fall-out products," Dr. John Linus Pauling asserted today.

He is professor of chemistry at California Institute of Technology, a Nobel Prize winner, and an outstanding scientific critic of continued nuclear test explosions. With highly refined mathematical equations, he challenged Dr. Willard F. Libby, scientific member of the Atomic Energy commission, who holds that carbon-14 from bombs does not menace health.

Pauling's calculations showed that for each year of bomb testing at the present rate, there will be the following consequences due to carbon-14: 55,000 children born with gross physical and mental defects; 170,000 still births and childhood deaths due to in-born defects; 425,000 baby deaths either in the womb or immediately after birth for the same reasons.

Wide Error Margins
This, he pointed out in a communication to the technical organ of the American Association for the Advancement of Science, is 17 times more than estimates of the damage to future generations from undisputed dangerous "fall-out products" for each year of bomb-testing. He granted that his calculations were subject to a very wide margin of error—the future effects could be five times greater or only one-fifth as great. But even if less, carbon-14 from bombs is a very real threat, he said.

As for the living, carbon-14 is as great a threat to them as is strontium-90 and other "fall-out products" as regards bone and blood cancers, and a greater threat as regards diseases resulting from radiation damage to other body tissues, he continued.

Carbon-14 and strontium-90 both are radioactive isotopes of those elements. Strontium has special affinity for bone and when its stems are radioactive as in the strontium-90 form of the element, the danger is great. The human body has carbon atoms in its every fiber and sinew; this radioactive carbon would have special affinity for the whole body.

This would include the reproductive chemistry which produce the genes that transmit not only characteristics but structural and functional soundness from one generation to the next. Radioactive carbon participating to some slight extent in this chemistry, could make changes in the genes that would cause fatal and non-fatal defects in offspring.

But human beings and everything else living have lived with carbon-14 since their very beginnings. Cosmic rays react with the nitrogen atoms which constitute the bulk of the atmosphere and convert a very small percentage of them into atoms of carbon-14. These atoms, with a radioactive half life of over 5,000 years, are in the atmosphere, the seas, the ground, even the rocks.

Taken Into Body
They're taken up by plants. People and animals eat the plants and thus carbon-14 atoms find lodgment in their bodies. The question is how many can living bodies contain without harm? Obviously the atoms made by cosmic

rays have never been in sufficient numbers to interfere with life.

Pauling's assertion was that nuclear explosions add enough of these radioactive carbon atoms to the existing and continuously renewed supply, to pose a threat to life which is keyed in intensity to the number of explosions. Each explosion releases a large number of neutrons which are atomic nuclear particles without electric charge.

A relatively few of these combine with nitrogen atoms and form carbon-14 atoms.

The nub of his challenge to Libby was that enough nitrogen atoms were so converted as to change the natural balance of carbon-14 atoms with other elements and threaten human life, existing and future, in an entirely new way. Libby's calculations, which are several years old, showed the contrary.

Olson-Ross Is High Bidder on Timber

Olson-Ross Lumber company, of White City, and Getson Mill, Inc., of Grants Pass, were high bidders for two tracts of national forest timber, according to E. C. Brown, supervisor of Rogue River National Forest. The timber was sold Wednesday.

Olson-Ross Lumber company purchased the Kerby Creek sale, an estimated two million feet of white fir, Douglas-fir and other species, in the Prospect district. Their high bid was \$22.50 per thousand board feet for white fir and \$22 per M for Douglas-fir. Runner-up in the auction bidding was Medford Forest Products.

Other bidders were Burrill Lumber company, Red Blanket Lumber company, Kogap Lumber company, Vernon E. House, and LeRoy Edwards. Conducts Auction
District Ranger Doug Baker conducted the auction.

According to Dick Swan, timber department manager for Olson-Ross Lumber company, logging will start immediately in the expectation of getting at least half of the volume moved to the sawmill logdeck before winter.

High bid was slightly more than two times the minimum price at which the forest service advertised the timber.

Getson Mill was high on the Baldy timber sale on the Applegate Ranger district. Their bid was \$25.05 per thousand board feet on an estimated 2,030 M of Douglas-fir and \$13.65 per M on 35 M of pine. Runner-up in the auction bidding was Brown Brothers Lumber company, also of Grants Pass.

Other bidder were Earl M. Manley, logger of Medford; Bate Lumber company of Merlin; Kogap Manufacturing

Legion Presents Book to Library

In memory of Earl A. Smedley, who served his country during World War I in the United States Army, American Legion Post 15, Medford, has presented to the Jackson County library a copy of John Steinbeck's most recent book, "Once There Was A War."

"Once upon a time there was a war," says the author in introducing his book, "but so long ago and so shouldered out of the way by other wars and other kinds of wars that even people who were there are apt to forget."

In reading Steinbeck's on-the-scene portraits of the war, however, originally filed as dispatches and now published in book form, one not likely to forget the human side of World War II with which it is concerned or of wars before and after it.

This is the 38th memorial book donated to the Jackson County library by the Medford Post of the American Legion in honor of departed members. Any group of individuals interested in placing memorial books in the library is invited to confer with the library director concerning selection of appropriate titles.

Porter Due on Timber Panel

Eugene — Congressman Charles O. Porter (D-Ore.) announced that he has arranged with two top forest research experts to appear on the University of Oregon campus Monday, Nov. 17, to discuss the latest Federal developments in timber utilization.

On the campus in Eugene Monday will be Dr. J. A. Hall, director of the Forest Products laboratory in Madison, Wis., and Dr. Robert W. Cowlin, director of the Pacific Northwest Forest and Range Experiment station in Portland.

The campus conference will be held under auspices of the Forest Industries Management Center, headed by Dr. Norman Taylor, assistant professor of business at the university. Lumbermen and timber operators from throughout western Oregon have been invited to attend a no-host luncheon at the university at 12:15 p.m. Monday. Dr. Hall will speak at 2 p.m. in Commonwealth hall on the subject of "Timber Utilization and Product Development."

A panel discussion is scheduled for 3:30 p.m. On the panel to discuss timber and lumber problems and answer questions from the audience will be Dr. Hall, Dr. Cowlin, Congressman Porter and Dr. Richard Lindholm, dean of the School of Business at the university.



JOURNEYING TO WASHINGTON, Mrs. Harry Winston, wife of New York jeweler, presents fabulous Hope diamond to Smithsonian Institution. With her is Postmaster General Summerfield, whose mail service delivered gem.

Secretary of State Appointment Brings Legal Controversy

Salem—UPI—It has been assumed up to now around the statehouse that Gov. -elect Mark Hatfield would appoint his successor as secretary of state when he takes office Jan. 12.

But a legal controversy over whether anything bars Gov. Robert D. Holmes from appointing a Republican to the post before Hatfield's inauguration is now in the wind.

It is the first time in Oregon history that such a situation has arisen.

State law is clear on two points:

Must Be Republican

The secretary of state's office is to be filled by a governor's appointment.

The appointee must be of the same political faith as the outgoing officer.

But if Gov. Holmes appoints a Republican, he might not be one the Republicans would want.

Rumor around the statehouse has it that Hatfield may not resign his secretary of state's post until the very moment he is inaugurated governor. This could forestall any possible move by Gov. Holmes.

It also involves a delicate legal point: Does a man have to formally resign from one state office before accepting another or does acceptance of the second office imply resignation from the first?

That was the question statehouse lawyers were arguing today.

Precedents Don't Help
Precedents are not too helpful.

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ful: Ex-Attorney General H. Van Winkle said in 1935 that a man who was a state legislator and then was appointed a member of the State Game

Commission automatically was presumed to have given up the first job when he took the second.
On the other hand, the state Supreme Court ruled in 1947

that state legislator Earl H. Hill could not accept a State Fish Commission appointment because he had not formally resigned from his legislative office.

Whether the high court ruling applied to the executive branch or just to the legislative branch had both politicians and lawyers researching today.

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