

PUBLIC SAFETY

Reactor Hazards Stressed

► THE FATAL atomic explosion near Idaho Falls, Idaho, Jan. 3, has emphasized the hazards of building nuclear reactors near large population centers.

This was underscored by Dr. Russell V. Morgan, dean of the new school of radiobiology at Johns Hopkins University, Baltimore, and Walter P. Reuther, president of the United Auto Workers, AFL-CIO, in statements made independently.

In releasing a study of 40 reactor accidents prepared by the AFL-CIO, the labor leader said the Idaho explosion had confirmed the "validity of the trade union opposition to the construction of the untested fast-breeder reactor near Detroit."

This reactor, he pointed out, is 300 times larger than an experimental model that exploded at the National Reactor Testing Station, Nov. 29, 1955.

The U. S. Court of Appeals upheld a court action brought by the AFL-CIO to stop the Atomic Energy Commission from granting a construction permit for the fast-breeder reactor in Lagoon Beach near the heavily populated Detroit-Toledo areas. The case currently is up for review by the U. S. Supreme Court. Thousands of persons would have been overexposed to radiation from the Idaho reactor accident, Mr. Reuther said, "if the stationary low-power reactor had been in a populated area."

Dr. Morgan told SCIENCE SERVICE the position taken by Mr. Reuther on the question of location of reactors, particularly the fast-breeder type, was correct.

He pointed out that industrial determination of location often is based on economic cost. The element of safety is paramount, the radiation specialist said. He believes the economic saving involved in placing such reactors in heavy populated areas is not great enough to justify the human risks inherent in such placement.

A reactor of the same type as that approved by the AEC for Lagoon Beach is being planned for construction at Peach Bottom in York County, Pa.

The York County site is on the Susquehanna River, nine miles above the Conowingo Dam, very close to the location scheduled for intake pipes that by 1962 will supply water to Baltimore, 38 miles away.

Although the population problem is not as acute in this area as in the Detroit-Toledo section, the chances of contamination of a major water supply for a large city raise serious questions, Dr. Morgan said.

"These questions, raised by the AEC advisory committee on reactor safeguards," he said, "should be answered before full power operation of the proposed Peach Bottom reactor can be considered."

The questions include the absence of a safe system for waste disposal, failure to provide either a secondary back-up safety system or an emergency coolant system, and no evidence to show that such safeguards are not needed.

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were patients at the Los Angeles Planned Parenthood Center, were studied. The investigation included studies of vaginal smears and samples of tissue (biopsies) from the lining of the uterus. Some of the group had been using the drugs for as long as 42 months, with 31 months being the average.

There had been some concern that the rather potent synthetic progestational hormones in the drugs might contribute to disorders of the genital tract or uterus. The effect of the drugs is to produce hormonal responses in the endocrine glands that block release of eggs (ovulation).

The investigators found no evidence that malignancy had developed in any subject since the drug program had begun. Eight of the group had evidence of malignancy prior to initiation of the program.

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AWARD WINNER—
Sir John Cockcroft

PUBLIC HEALTH

Cancer Relation Studied

► THE RATE of cancer occurrence may be related to man's environment. Cancer seems to occur more often in populated regions where radiation is much higher than normal, due to radioactive rocks.

In a survey of radioactivity by Government geologists in Washington County, Md., distinct differences in the radioactivity of rock masses were found. Some rocks were ten times more radioactive than others in the county. Although the number of higher radiation readings was relatively small, the higher readings seemed to be in populated areas where the cancer rate was higher than normal.

The radioactivity survey is part of a program initiated by the National Cancer Institute, Bethesda, Md., to see if the geographic distribution of cancer in the county is related to various factors in man's surroundings. The program, conducted in cooperation with the Washington County Health Department, includes both checking available information on the county's present population, and analyzing the vegetation, soils and rocks in the county.

Before the scientific studies were begun, old population records were checked for accuracy and the death rate from cancer.

The population was grouped according to election districts, because these were the smallest geographical units for which accurate records had been kept. Preliminary results show that certain districts definitely had a higher rate of cancer than others.

In addition to the radiation survey, scientists also analyzed samples of soils and plants for traces of elements that may influence the rate of cancer. An unusual distribution of elements, which may be related to the type of soil in the area, was found.

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PUBLIC HEALTH

No Bad Effects Found From Oral Contraceptives

► A COMPREHENSIVE two-year study of the new oral contraceptives has revealed no undesirable effects of the drugs on a large group of women who participated in the trial.

Drs. Dean Moyer, Edward T. Tyler, Henry J. Olson and Louis J. Zeldis of the University of California, Los Angeles, Medical School made the study.

A total of 1,653 subjects, all of whom

PHYSICS

Briton Awarded 1961 Atoms for Peace Award

► A NOTED British physicist and educator, Nobelist Sir John Cockcroft, will receive the 1961 Atoms for Peace Award.

He will be awarded \$75,000 and a gold medallion symbolizing the award at the Massachusetts Institute of Technology, Cambridge, Mass., on April 6.

Sir John's contributions to the peaceful uses of the energy within the atom range from the first demonstrations that this energy can be released to the direction of the development of full-scale nuclear-powered generating stations supplying electricity to England.

Sir John received the Nobel Prize for Physics in 1951 for developing, with Nobelist E. T. S. Walton, the first apparatus to accelerate atomic particles artificially.

The Atoms for Peace Award was established in 1955, as a memorial to Henry and Edsel Ford, to help promote international efforts to develop nuclear energy for peaceful purposes. The first award was given to Nobelist Niels Bohr of Denmark in 1957.

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