

## Clay Used to Purify Radioactive Water

By FRANK CAREY  
Associated Press Science Writer

ATLANTIC CITY, N.J. (AP)—Common clay offers a cheap and efficient means of purifying water contaminated by radioactive fallout from a nuclear attack, a government scientist reported today.

Widely occurring types of clay also offer a good bet for aiding in the disposal of radioactive "garbage" — the wastes of the atomic industry — the American Chemical Society was told by radiological chemist William J. Lacy of the Federal Office of Civil Defense.

In a report prepared for the opening of the 142nd national meeting of the ACS—conclave being attended by more than 10,000 chemists and chemical engineers — Lacy described research conducted at the Atomic Energy Commission's Oak Ridge, Tenn., National Laboratory.

Six types of clay were tested for their ability to remove radioactive strontium-90 and cesium-137 from the liquid wastes of nuclear reactors.

These are two of the three most feared radioactive isotopes which also occur in the fallout from nuclear weapons explosions. Radioactive iodine is the third.

Declaring that reactor wastes are similar, in general, to water supplies which would be contaminated by fallout in a full-scale nuclear attack, Lacy said:

1. All of the six clays tested showed good ability to remove cesium from the wastes, and four of the six showed high efficiency in removing radioactive strontium.

2. The clays work by absorbing the radioactive materials — much like the action of a sponge—once they are added to a liquid containing the dangerous, radiant stuff.

3. An ounce of clay is enough to remove most of the strontium-90 from a gallon of water under some conditions, while cesium-137 can be removed three times as efficiently. The chemist said that simply stirring the clay with the water removes about 85 per cent of the cesium, and that more than 90 per cent can be removed by letting the water flow through a column of the clay.

4. The tests demonstrate that in addition to its usefulness for the

decontamination of radioactively polluted water following a nuclear attack, this method has application in the disposal of radioactive waste.

On the latter point, Lacy explained that absorption of the radioactive material onto the clay reduces by many hundred-fold the volume of highly radioactive material that must be stored.

Lacy said the clay suits tested, ranked in the order of their ability, to remove strontium-90, were: Coconago shale, Pittsburg, New Mexico kaolinite, Wyoming bentonite, North Carolina vermiculite, and Utah halloysite.

### Air Force Band Ducats on Sale

Tickets for the U.S. Air Force Band concert will go on sale Wednesday, Dean C. Morgan, chairman said today. The band will present two afternoon concerts for school children in addition to the evening performance at 8 p.m. Sept. 24 in the high school auditorium. The group's appearance here is sponsored by the school system.

Inquiries received at the School Administration office this week indicate a lively interest in the famous group, Morgan said. Proceeds from the concert go to the school system's Boys and Girls Fund.

Sharing honors with the band for the performance will be the "Singing Sergeants", a 30-member vocal group. The chorus, all band members as well as vocalists, have appeared in many national television shows, as well as their weekly "Serenade in Blue" radio program.

Ticket books will be located at Broadbent & Hensly Music Co., Lee Parsons Music Co., and Wells Music Co.

### Technicians Return

MANILA, Philippines (AP)—A total of 118 Filipino technicians employed by the U.S. military advisory assistance group in Laos have returned home so far in the pouches of foreign military personnel from the neutralized country.

The latest group of 18 arrived Saturday. The remaining 104 will be flown back in groups twice weekly.

# Bentonite Able To Purify Radiocative Water

Clipped By:



seabix1

Wed, Apr 29, 2020