

# 42 Nations See A-Curb Device As U.S. Guests

By Chalmers M. Roberts  
Washington Post Staff Writer

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Diplomats from 42 nations were flown here today by the United States to see a demonstration of a device which could help slow down the nuclear arms race.

Developed by the Atomic Energy Commission in cooperation with the Arms Control and Disarmament Agency (ACDA), the device is designed to make sure that if and when the United States and the Soviet Union agree to trim the output of the stuff which goes into nuclear weapons, neither will be able to cheat.

The diplomats were brought here from the United Nations where they have been arguing about disarmament. They came to see how the device is applied at one of the four reactors at Hanford which have been closed down because the United States has more than enough fissionable material for bombs.

The occasion was something of a first. Not since the Hanford Works were begun in World War II secrecy has any outsider set foot in the highly-classified area here in Washington State's southeastern desert.

It was at Hanford that the plutonium was produced for the bomb which fell on Hiroshima, Japan, in 1945. Hanford as a whole is a government reservation almost as big as half the state of Rhode Island and represents a government investment of more than \$1 billion.

## Two-Part Device

The device shown today is a

two-part affair, designed, as the diplomats were told by an ACDA representative, "for effectively and unobtrusively monitoring a shutdown nuclear reactor and ascertaining that it has not been operated between infrequent periodic inspections."

The idea is to limit the number of inspections which the Soviet Union consistently contends are simply American "espionage."

The Soviet and other Communist delegates at the United Nations refused to accept the offer of today's visit by chartered jet in apparent realization that they might later be asked to take the secrecy wrap off one of their own reactors.

While the United States has announced it has closed four reactors, the Soviets, when Premier Khrushchev was in power, promised only to halt construction of two reactors. But intelligence reports indicate the Russians never did so.

Thus this trip amounts to an American effort to convince the non-Communist U.N. member nations, ranging in their representation here today from Belgium to Burma and from Chad to Chile and including two nuclear powers, Britain and France, that a fool-proof gadget exists which could be very useful.

The gadget itself would occupy about half the space in a station wagon. Equipment for attaching it, and later for checking, would fill another one-and-a-half station wagons.

The device, (attached to what is known here as F reactor) is keyed to the fact that cobalt becomes radioactive if any neutrons are present. Neutrons are present in a

plant making fissionable material for nuclear weapons.

The device consists of a so-called "safing tape" inserted into the reactor which would produce a tell-tale record or "fingerprint" of neutrons plus a sealing system to insure that the tape has not been removed from the reactor between inspections.

The sealing system is cleverly composed of a special wire which becomes flawed if someone tampers with it between inspections. The seals are X-rayed when installed and again X-rayed during inspection to compare the very random, complicated identification patterns for change. A change, however minute, would indicate tampering.

After AEC developed the gadget it was turned over to American intelligence experts to see if they could cheat on it. They tried but concluded they couldn't, much to AEC's and ACDA's satisfaction.

Three or four inspections a year by a team of four experts, each lasting two days a week, should satisfy one nation that the other is living up to its agreement.

The device was developed in about 18 months, after President Johnson announced in January, 1964, that the United States was cutting back production of fissionable materials for weapons use.

#### Seek to Prod Soviets

This step was a combination of fiscal prudence and disarmament propaganda. It represented no loss to the American weapons program but it

was hoped that the Soviets, if they too had enough weapons material on hand, might respond in kind.

Technically speaking, the cut-off of production of nuclear weapons is only one item in the American proposals since 1962 for general disarmament. As such it is on the back burner as far as the arms control talks go.

But the gadget demonstrated today could have a more immediate meaning since it does relate to the hottest arms-control measure of the moment—the proposed treaty to halt the spread of nuclear weapons. This treaty is now under negotiation at the United Nations, between the United States and the Soviet Union in the first instance.

Its relevance springs from this fact: the non-nuclear nations, particularly the dozen or so with a capability for joining the current five-nation nuclear club, contend that the nuclear powers are only trying to freeze them out without any compensating downturn in the arms race by the superpowers.

ACDA's deputy director and today's host, Adrian S. Fisher, said last August at the Geneva 18-nation Disarmament Conference that the United States "does not believe that the cut-off and the non-proliferation agreement should be linked."

But, in the next breath, Fisher went on to say that the United States "does believe that in the context of the (proposed) cut-off agreement the nuclear powers should be prepared to accept the same degree of verification that we have proposed for the non-nuclear weapons powers as appropriate for safeguarding a non-proliferation agreement."