

## IS CIVIL DEFENSE COST EFFECTIVE?

Senator Edward Kennedy, in response to a letter from DDP, stated that he felt "fallout shelters were not a cost\*effective means of protecting the American public from a nuclear attack." In general, lack of cost)effectiveness is frequently argued by opponents of any and all defenses against nuclear attack.

Cost effectiveness is by its very nature a comparative measure. The cost per life saved by various methods has been compiled by Dr. Bernard Cohen, Professor of Physics at the University of Pittsburgh:

| ZZ<br>\$/life saved | Method                          |                 |
|---------------------|---------------------------------|-----------------|
|                     | Immunizations (Indonesia)       | \$              |
| 210                 | Improved sanitation (3rd world) | 4,030           |
|                     | Cervical cancer screening       | 50,000          |
|                     | Breast cancer screening         | 160,000         |
|                     | Hypertension control            | 150,000         |
|                     | Kidney dialysis                 | 400,000         |
|                     | Mobile ICUs in small towns      | 120,000         |
|                     | Improved traffic signs          | 31,000          |
|                     | Upgrade guard rails (highways)  | 101,000         |
|                     | High level radioactive waste:   |                 |
|                     | strict precautions vs random    |                 |
|                     | burial with simple precautions  | 220,000,000     |
|                     | Stricter safety standards for   |                 |
|                     | nuclear reactors, compared with |                 |
|                     | prior standards                 | \$2,500,000,000 |

-Dr. Cohen's complete discussion on "Reducing the Hazards of Nuclear Power - Insanity in Action" is available free from the USCEA, 1776 I St. NW #400, Washington, DC 20006. Note: the reason for the high cost of "regulatory ratcheting" by the NRC is the fact that peaceful nuclear energy causes so few deaths to begin with.

Given the media attention now focused on cholesterol, it is worth noting that the cost of saving one year of life with cholestyramine treatment of hypercholesterolemia ranges from \$36,000 to \$1,000,000, depending on the risk group (AMA 258:2381). Compare this with the cost of one year of food storage (\$144/person) or a space in a blast shelter (\$200 or more) or an SDI program capable of saving 50 million lives for \$50 billion (\$1000/life saved).

### CD IN PIMA COUNTY-

Water Supply: "All primary city pumping stations have emergency power, and there are sufficient portable generators, pumps, etc. available to maintain water supplies and other emergency power requirements. Fuel is not stockpiled"

Food Supply: "There is no emergency food storage."

Medical Equipment: "The packaged disaster hospital located in Cochise County was allocated to us....[but] this entire commitment was put on hold by the unexpected transfer of [DMAFB commanding officers]." (Pima County Division of Emergency Services, personal communication, emphasis added.)

### CHERNOBYL AND SOVIET CD-

Many Western commentators were puzzled by the delay in the

evacuation of the population near Chernobyl. Actually, recommendations of the International Commission on Radiological Protection (ICRP) were followed. These call for evacuation if the integrated dose commitment for individuals is expected to reach 75 Rem. On April 26, radiation levels in Pripjat were 10 mRem/hr, not sufficient to predict the need for evacuation. The level rose to 1000 mRem/hr, and evacuation commenced on April 27. The average dose commitment received by residents of Pripjat was 3 Rem, less than the annual exposure permitted for a radiation worker. Persons living between 3 and 15 km from the plant received an average of 43 Rem, a dose predicted to increase the risk of dying of cancer from a normal of about 16.7% to about 17.2%. Those outside the evacuation zone received about 0.5 Rem, the increased dose accrued by living in Denver for 10 years instead of Washington, DC. The total worldwide health effects will probably be less than the effect of one year's combustion of fossil fuels in the USSR (R. Wilson, Science 236:1636)1640).

In an interview on Komsomolskaya Pravda, May, 1987, Vladimir Leonidovich Govorov, chief of USSR civil defense, commented that "scientific ... progress has fantastically increased the potential for producing goods.... Unfortunately, the scale on which people are affected by accidents...has increased as a result. The Indian city of Bhopal, our Chernobyl, show the need to further improve civil defense."

Govorov stated further that while nuclear war would be a "great misfortune," population protection will "without doubt considerably reduce the number of human lives lost."

#### SOVIET COST EFFECTIVENESS

Recently, Soviet industry delivered its newborn missile: precise and mobile intercontinental SS-24. A few months earlier, the most powerful booster in the world Energia was successfully employed. Evidently, the Soviet military space babies are in good health....

But what about human babies? In a recent interview in Pravda, one medical official admitted that the situation is worse than horrible. The equipment of Soviet obstetricians consists mostly of a measuring tape, stethoscope, and forceps. Delivery wards should have at least 60 types of medical instruments. Soviet industry makes only six types and no money is available to import the remaining 54.

There are no disposable items at all. The linens ... in many cases are hand washed....Infection is always present, and thousands of healthy women and babies die. To hide these facts, the Ministry of Health plays with statistics. According to international rules, a newborn is counted if his weight is more than 500 grams, but the Soviets start counting at 1000 grams and even that cannot improve the picture: Mortality of Soviet babies is the same as in Uganda.

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