Miracle from the Sea *(Continued)*

almost three million gallons of fresh water daily. The plant, which cost $11 million, gives arid Aruba not only much-needed fresh water, but also 15,000 kilowatts of electric current. The plant was installed by a team of New York engineers.

In another case, a large American firm recently entered into a joint venture with Israel to construct a large sea-water desalting plant for that parched country. The same firm also hopes to construct other huge plants in the U.S. A spokesman for the firm says that by 1965 they will have plants in operation with an output exceeding one billion gallons of fresh water a day!

Progressive as these new plants are, they still are only a first step. Our fresh-water rivers and lakes are becoming more and more polluted by our factories and sewage systems.

Soon our processed, salt-free ocean waters will have to be transported to the interior not only for naturally arid regions but for areas where man himself has destroyed this vital resource.

How do we do it? Obviously the price of transporting huge quantities of fresh water overland via railroad, truck, or barge is not feasible economically.

There remains only one method, tested in practice for many years —huge overland pipelines.

Our petroleum and gas industries gained enormous experience in the installation of vast pipeline networks in our country, and I feel certain that in the future nearly all of our desalted ocean water will flow through an immense cross-country pipe network.

Surrounded as we are by the Atlantic on the east, the Pacific on the west, and the Gulf of Mexico on the south, I can foresee on our shores hundreds of huge desalting plants which will pour billions of gallons of fresh water into the country's pipelines day and night.

As enormous as such projects are, we cannot afford to be without them. Consider that only five years ago industry alone consumed more than 100 billion gallons of water daily—and that by 1975 we will use up to 300 billions.

Irrigation in the U.S. also uses prodigious amounts of water now—more than 135 billion gallons daily, mostly from rivers and lakes, with the need climbing constantly. With an abundance of water available through pipelines, we could supply more than 250 billion gallons daily in the latter part of this century.

WILL EVEN the new "big-inch" water pipelines satisfy the demands of all reclaimed desert lands in the U.S., plus our natural growth?

By all means. Consider that water flows day and night through the entire network. Yet our water demands drop to a minimum at night. That gives us a chance to store about 30 to 40 percent of the pipelines' capacity in huge reservoirs for daytime use.

Economic necessity makes it certain that such a vast desalting system use nuclear energy.

Atomic energy will be used not only in the manufacturing of salt-free ocean water, but to provide pumping power to move the hundreds of billions of gallons across the nation, even over mountains.

Expensive? Yes. Complex? Yes. But remember there are now 180 million Americans; when the year 2000 dawns, there will be more than 256 million, and they will require at least 10 times as much water per capita as we use now.

If we are to prosper and stay strong, we must start building our converted ocean water-supply network quickly, or we shall fall behind other great nations.

The Need for Tapping the Oceans' Water Supply

We are putting increasing pressure on our water supplies. Many aspects of modern living—swimming pools, air conditioning, gardening—put increased demands upon already limited supplies. Population growth puts extra requirements on rapidly expanding communities. All of this, in my opinion, adds up to the inevitable conclusion that we must learn how to change sea water into potable water if we are to meet our industrial, agricultural, and domestic requirements.

The ocean is our last remaining source. It is limitless and eternal. Business, industry, and all levels of government must work together to find economical and efficient processes of getting water from the oceans of the world.

—Clinton P. Anderson
Senator from New Mexico
Chairman, Joint Congressional Committee on Atomic Energy