

## **Oil - A Safe, Reliable Supply for the U.S.A., by Carla L. Romita**

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Fuel oil is a very important energy source for American consumers and there is plenty of it to serve our energy needs for many years.

Much of our domestic petroleum storage is protected in the Strategic Petroleum Reserve (SPR), established in 1975 by President Ford, to ensure a safeguarded, constant fuel supply. The SPR has a capacity of 720 million barrels of crude oil that can be released by the President during emergency conditions. President Bush released 23 million barrels from the SPR to help meet the country's petroleum demands following Hurricane Katrina.

The SPR is located at sites in Texas and Louisiana. It is the largest emergency oil stockpile in the world. Oil can be released from the SPR and delivered into the marketplace within 13 days and can be pumped out at a maximum rate of 4.3 million barrels per day for up to 90 days. In addition the U.S. maintains the Northeast Heating Oil Reserve of 2 million barrels of heating oil.

The Northeast Heating Oil Reserve is to be used in case of supply shortages or delivery problems in nine states from Maine to Pennsylvania. This refined fuel can be released by the President if there is an actual disruption in supply, or certain market price conditions occur. Although it provides added insurance when demand peaks, it has never been drawn upon. In the nearly 100 years since fuel oil has been used for heating – through wars, extreme cold weather and natural disasters, the oil industry has a history of continuing to fuel to its customers when needed.

The U.S. is the third largest producer of oil in the world! Thirty-one states have crude oil reserves, and the U.S. ranks third among top oil producers. Eighty percent of our reserves are concentrated in four states. Texas has 22%, Louisiana 20 %, Alaska 20 %, and California 18 %. The Federal offshore crude oil reserves in the Gulf of Mexico contain about 5.1 billion barrels and 566 million barrels in the Pacific Ocean. Other states with crude oil reserves include Oklahoma, New Mexico, Wyoming, North Dakota, Kansas, and Montana.

Energy demand continues to increase, however. Higher worldwide standards of living require greater amounts of energy. New sources of energy are primarily being discovered in places where resources are difficult to extract. The petroleum industry is using technology to create greater efficiencies in retrieving and processing crude oil. Modern technology enhances the likelihood of finding oil and is reducing wasted expenditures on dry wells. Drilling and production technologies have made it possible to exploit reservoirs that would formerly have been too costly to put into production and to increase the recovery from existing reservoirs.

To identify a prospective site for oil production, companies use a variety of techniques, including core sampling, which is physically removing and testing a cross section of the rock, and seismic testing. Seismic testing can now locate deposits with three-dimensional underground maps. What would have been considered unreachable years ago can be accessed today.

Large volumes of technically recoverable domestic oil resources remain undeveloped and undiscovered in the United States. According to the Department of Energy, undeveloped domestic oil resources still in the ground total 1,124 billion barrels. Of this large "in-place" resource, 430 billion barrels is estimated to be technically recoverable. A full two-thirds of our nation's known oil resources may not be recoverable without the development and use of advanced technologies. The Department of Energy, the petroleum industry, universities and other research entities continue to develop enhanced oil recovery technology. Research is uncovering new ways to use heat energy, chemicals and gases to push additional oil to the surface, or to increase its flow rate. Carbon dioxide can be injected into an oil reservoir to push additional oil to the surface. Enhanced recovery with carbon dioxide is capable of doubling recovery efficiency.

The Department of Energy has determined that state-of-the-art enhanced oil recovery with carbon dioxide could add 89 billion barrels to the recoverable oil resources of the United States. Current U.S. proved reserves are 21.9 billion barrels. If this oil could be added to the category of proven reserves, the U.S. would have the fifth largest oil reserves in the world based on present estimates.

Ultimately, the availability of greater and more reliable supplies of crude oil may have a positive impact on your fuel prices. In the meantime, you can react to higher energy prices by taking steps to reduce consumption. Carefully maintain and, where necessary, replace your building's energy-consuming systems to achieve higher efficiencies. State of the art oil heating equipment can achieve efficiency rates as high as ninety percent. For some buildings with older heating plants, this could reduce your fuel consumption and costs dramatically.