## 5.1.4. Transportation and Distribution

PEMEX has a wide network of 407 pipelines covering a total length of 59,851 kms. The longest lines are 30,031 kms. of collection and service pipes. Gas pipelines cover 13,166 kms., divided into two big arteries going from Ciudad Pemex (Tabasco) to Guadalajara (Jalisco), San Luis Potosí (SLP) and Lázaro Cárdenas and from Chihuahua (Chihuahua) to Reynosa (Tamaulipas) and Ciudad Juárez, mostly to cover exports to the U.S. A wide network of poli-ducts, covering 9,652 kms, carry refined products throughout the country in two main arteries: from Tabasco to Jalisco and Aguascalientes; and from Nuevo León to the U.S. border at Ciudad Juárez, Durango and Veracruz. Oil pipelines measure 5,142 kms. and basically link Salamanca (Gto.), Tabasco, Salina Cruz and Cadereyta. Additionally, there are 1,414 kms. of petrochemical and 222 kms. of fuel oil pipelines.

PEMEX has a tanker fleet of 35 ships with a total deadweight capacity of one million tons ang 7.5 mb. In 1989, 146.5 mb. of crude oil, gas, refined products and petrochemicals were transported by sea, 64% through PEMEX's fleet and the remainder through rented vessels. For land transportation, PEMEX operates 7,047 tank trucks, of which it owns 1,347, in addition to 1,636 rail tank cars, 1,505 of which are PEMEX's property. In 1989, it moved 20.7 million tons of petroleum and petrochemical products over land.

## 5.1.5 Research and Development

A very important organization in the Mexican oil industry is the Mexican Petroleum Institute (Instituto Mexicano del Petroleo IMP). Although Mexican industry in general lacks broad-based product research and development tradition, in the petroleum area, it has a distinguished record. Almost all of the petroleum industry related research and development is carried out by the government owned IMP, which was established as a research, training and engineering consulting organization separate from PEMEX but with PEMEX as its principal client. The IMP employs close to 3,500 engineers and technicians who conduct most of PEMEX's projected engineering work. It is also free ti hire local as well as foreign consultants to assist in project design and planning. PEMEX also relies heavily on the IMP for technical advice and testing in Mexico bejore it buys products of new technologies or from new suppliers.

## **5.2 PROJECTED ACTIVITIES**

The general objectives set for PEMEX in the years to come are to increase efficiency, satisfy internal demand for petroleum products, increase exports, improve the quality of its products and contribute to strengthening Mexico's public finances.

Areas of priority investment are development drilling; exploration drilling in areas with the greatest potential; refineries, particularly those that are already in the construction phase; and petrochemical plants.