DISSERTATION TITLE:
OIL TERMINALS MANAGEMENT

AUTHOR: MANUEL RUIZ MONTALBÁN

TUTOR: RAMÓN JUANOLA
The ocean transportation of petroleum by means of tankers is, at present day, the most used way to transport large quantities of this dangerous and valuable liquid material from the large supplying zones of petroleum (Venezuela, Libyan, Algeria, Mexico) to the more important receiving zones (United States of America, Europe and Japan). Although diverse pipelines are being built in order to transport this matters in the whole world, transport by sea continues being the most used and useful way of carrying such substances. However this modality involves some crucial potential risks for people, installations and environment.

At present time, November 2002, a sad news concerning this subject has shocked the world. An oil tanker has been wrecked in front of the coast of Galicia in Spain. And as a result of this event an enormous oil spill has contaminated the gallician seaside. Risks involucrated in operations of loading and unloading these dangeurous materials are so big that oil companies and port authorithies must obey all the safety regulations.

This dissertation is divided in three main parts or sections and an additional section that shows my personal conclusions.

The first section is an introduction to the petrol harbours and it comments several design criterions to a correct disposition of oil terminals and tanker moorings. It is explained, with accurred details, installations, situation and distribution of a maritime oil terminal. It is also exposed aspects relative to the management of an oil terminal.

The second part named safety recommendations in oil terminals, is a brief guide for safety in oil tankers and terminals. There are commented basic preventive measures to obey in the tanker and in the terminal such as recommendations for a goog mooring, inert gas system and operations of loading and unloading.
Finally the third section shows an applied and near example of an oil terminal management: the hidrocarbon jetty in the port of Tarragona. This part is formed by a description of the Repsol's oil jetty and a completed album of photographic of the installation. All the photografies were taken by myself in November 2002. The reader of this dissertation can see the operations involucrated in three tankers carrying fuel, nafta and etylen. This section is complemented with swell information of the zone of Tarragona because is a fundamental parameter to be considered in an oil terminal management.