

OCEAN
OIL
AND GAS
DRILLING



THE
LAW

by PETER N. SWAN

OCEAN OIL AND GAS DRILLING AND THE LAW

by
PETER NACHANT SWAN

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PREFACE

The recovery of hydrocarbons from beneath the ocean floor is not a new phenomenon. Oil and gas wells have been producing in the Gulf of Mexico for over thirty years and in a more recent timespan there has been substantial offshore production in the coastal waters of California. During this time technology has improved and petroleum engineers and reservoir engineers have expanded their knowledge about offshore drilling and production. But the past twenty years of production in coastal waters of the United States have not been without their tragedies and catastrophies. Few will forget the platform fires in the Gulf of Mexico or the blowout off Santa Barbara.

Today, depletion of most of the easily extractible reserves, the dramatic rise in the price of crude oil, the fear of further OPEC boycotts, and the steadily increasing global demand for petroleum products have necessitated the exploration for and development of more environmentally hostile offshore locations. Offshore oil and gas exploitation is underway in the South China Sea, in the Persian Gulf, off Alaska, Indonesia, Brazil, Nigeria, Venezuela, in the Caspian Sea, and in the North Sea. Moreover, offshore exploration is being conducted or planned for the Barents Sea, the Gulf of Alaska, the Grand Banks off Newfoundland, Georges Bank off Maine, Baltimore Canyon off Maryland, off the coasts of South Carolina and Georgia, north of the sixty-second degree latitude in the North Sea, and in the Yellow Sea.

These additional locations may be contrasted with the relatively benign conditions in the Gulf of Mexico in that the water depths are, on average, greater, and in many cases the weather and climatic conditions are far more severe (though the Gulf does have its occasional hurricanes). In addition, the Gulf of Alaska has a well-documented record of seismic activity. Finally, both safety and environmental consciousness has been raised since production began in the Gulf of Mexico and more elaborate safeguards are now required.

Another factor, not to be disregarded from the legal standpoint, is the change of legal rights between the producers and the country within whose jurisdiction the mineral

deposit if found. It is safe to say that the pattern of exploitation based on concessions granted to the producers by foreign governments is no longer operable. (See, A. Sampson, THE SEVEN SISTERS 230-39 (Hodder & Stoughton 1975)). Escalating royalties, substantial taxes on the producers' takeout, and the emergence of state participation schemes typify the present era.

Technologically speaking, the improvement in underwater riser pipes, directional drilling, diving and pipelaying techniques, dynamic positioning equipment for mobile rigs, navigational and locational equipment, marine heavylift capabilities, and the development of single-point mooring equipment have combined to produce a second generation of offshore oil and gas facilities. Development of submersibles, tethered platforms, subsea completion equipment, and pumpdown workover equipment indicates that third generation configurations will soon be operational.

The increasing complexity of the technology involved together with the more hostile settings from which the oil will be produced, inevitably lead to greater risks and hazards. The minimization of these risks is very expensive. The engineering expertise developed and demonstrated in the space exploration program has now been transferred to a substantial degree to the offshore industry. Just as the technology has become more sophisticated, so too have the legal relations become more important and more intricate.

In this work there will be no effort to cover or discuss every aspect of the legalities surrounding offshore mineral exploitation. Notably excluded are matters dealing with domestic and international taxes and labor law. Mobile facilities such as semi-submersible drilling platforms, pipe-lay barges, jet dredging barges, drill ships, work boats, submersibles and diving support ships, quarters vessels, heavylift ships, and helicopters are largely excluded from this study. This exclusion may be justified by observing that the law pertaining to such mobile facilities in general follows the maritime law for conventional vessels.

Mineral rights, general petroleum law and unitization agreements in general are not treated herein. (For the special case of a trans-national-sector unitization based on a special treaty, see III A 7 infra.) There is a

substantial body of literature in these areas already and conventional petroleum law is either wholly inapplicable (e.g., in the case of a license granted by a sovereign nation) or it applies without material modification to the offshore situation. Because of the enormous cost of offshore development there is little in the way of "wild-cat" activity. Moreover the body of law dealing with the rights of holders of various royalty interests and working interests, particularly as they pertain to small investors, is far less applicable to the offshore context where operating agreements serve as the primary method of allocating participation rights.

Questions of creditors' rights, particularly in bankruptcies and liquidations, have not been included as this would involve a major digression into the domestic laws of the United Kingdom, Norway and the United States addressed to problems that will arise, if at all, only very infrequently. Insolvencies are not unknown in the offshore industry, but to the extent this study focuses on fixed platforms operated under carefully conferred government licenses and used to produce an increasingly scarce and necessary commodity, the omission seems justified. Legal questions arising out of subcontracts and mechanics liens are not treated, although there is a limited discussion of the lien problem in section II D 4. Neither is the important area of shoreside impacts treated directly in this work, although legal precedents involving the issue of state versus federal control over necessary support operations are discussed in section III C. Much attention has been directed to onshore impacts in popular literature, research reports, and environmental impact statements. A partial bibliography of such literature is offered in Appendix 23.

This study does not purport to be a true comparative law study. Despite a seven months residence in Norway, the author did not have time to acquire the linguistic or legal competence to master the Norwegian legal system. Thus the bulk of the discussion pertaining to Norwegian law must rely on secondary sources, commentaries, personal interviews etc., available to the author in English. Even with regard to English law where language was not a problem, there was insufficient time to do an original and thorough comparative analysis. Similarly there is no effort to refer to or discuss common market law. It is the author's impression

that, except in general ways pertaining to marketing of the product, common market law has little or no impact on offshore operations other than in the area of labor law. (See T. Daintith & G. Willoughby, MANUAL OF UNITED KINGDOM OIL AND GAS LAW 207-220 (Oyez 1977) (reprinting and commenting upon E.E.C. Directives 64/428 and 69/82)).

With offshore operations taking place on a world-wide basis it was necessary to develop some focus for the present study. The areas selected were the North Sea in particular and, to a lesser extent, the Gulf of Alaska. This choice was justified by the fact that both areas present hostile environments, both have well-developed fishing industries and scenic coastlines, and both are within the jurisdiction of developed nations having westernized legal systems. Additionally, in the case of the North Sea, sites, data and personnel were accessible for the author's field research. The study is not truly comparative but, where feasible, the analysis is presented in parallel form so that an understanding of United Kingdom and Norwegian law as well as U.S. law may be gained in context. In some areas such as insurance the London market so dominates the field that it was deemed sufficient to concentrate on the policies and conditions as generated from that market.

A detailed table of contents is provided and it is recommended that the reader peruse this if selective reading is intended. The study begins with an explanation of the technology involved. The presentation stops short of mathematical formulae, highly theoretical considerations, and the multitude of engineering details involved in special components, sub assemblies, etc. Although the technical discussion is designed to be understood by lay persons, an effort has been made to be accurate, precise, and complete.

The following subsection, under the general heading "Proprietary Considerations", opens with a discussion of the economics and legalities of exploratory data. It then proceeds to a comparison of several leasing or licensing schemes and the legal implications of each. The next subsection deals with joint operating agreements, or State Participation Agreements, as they are called in the Norwegian sector of the North Sea. The format of the Norwegian agreement is used as a paradigm for the discussion. The fact that virtually all licenses are jointly held leads

naturally to a discussion of potential antitrust problems. Another portion of this section deals with the contracts covering the construction, delivery, emplacement and hookup of offshore facilities. This is followed by a discussion of the methods of financing the development of an offshore oil-field. The section concludes with an examination of the insurance coverage available to protect the owners, operators and builders of such facilities.

The next large section deals with public law problems. It begins with a review of international law relevant to offshore mineral exploitation. It then proceeds to focus on administrative law procedures in the United States, moves to recent Supreme Court decisions involving problems of federalism in the United States and concludes with summaries of regulatory constraints in the United Kingdom and Norway pertaining to offshore operations.

The final major section details liability problems including manufacturers' liability, collision at sea, personal injury and death, and oil pollution. In the last two instances, substantive laws of the United Kingdom and Norway are summarized in addition to U.S. law.]

This study is primarily a comprehensive survey as opposed to a more narrow, deeply analytical work. It is hoped that it will be a valuable resource for lawyers who do not specialize in offshore oil exploitation, for government officials interfacing less directly with the offshore industry, for citizens in environmental groups, and for anyone who, although a specialist in one of the included areas, desires information about legal problems in related areas.

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