

Liquefied Natural Gas Facilities

Report 7:

The Development of Petroleum
Resources from the Outer
Continental Shelf: Legal
Management Problems and
Capabilities in Oregon

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*Report to the
Oregon Outer Continental Shelf
Oil and Gas Development Task Force*

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OREGON OUTER CONTINENTAL SHELF OIL & GAS DEVELOPMENT TASK FORCE REPORTS

- OCS Oil and Gas Development: Jurisdiction, Administration, and Management Systems, by *William Tufts* Report #1
- Federal Pre-Emption, by *Deborah A. Schroth* Report #2
- Federal Consistency, by *James B. Buck* Report #3
- Offshore Pipelines, by *James B. Buck* Report #4
- Oil Spills/Oil Tanker Operations, by *Kenneth Johansen and Richard Parrish* Report #5
- Ports and Onshore Facilities, by *Martha Evans* Report #6
- Liquefied Natural Gas Facilities, by *Matthew Berger* Report #7

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PREFACE

This report was prepared by Matthew Berger of the University of Oregon Ocean Resources Law Program. It is one of a series of reports to the Governor's Outer Continental Shelf Oil and Gas Development Task Force on legal issues associated with the development of petroleum resources and associated facilities. It is intended for the use of the members of the Task Force and other interested persons. Specific views and recommendations are those of the author and not necessarily the views of the Task Force, the Department of Land Conservation and Development, or other persons who provided assistance or information.

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LIQUEFIED NATURAL GAS FACILITIES

Section I

INTRODUCTION

The siting of energy facilities in the Oregon coastal zone presents a delicate question of balance: On the one hand is the notion of preserving the coast in its most natural, and thus most beautiful condition; while on the other hand is the notion of utilizing available land to fulfill the state's obligation to provide Oregonians and others with sufficient numbers of energy facilities to meet their energy needs.¹ Ecological, cultural, historic, and aesthetic values in the coastal zone are essential to the well-being of the people.² Yet one of the national objectives is to attain a greater degree of energy self-sufficiency. Due to the water-dependent and water-related nature of certain types of energy facilities, e.g., liquefied natural gas (LNG) marine terminals, it is a foregone conclusion that there will be energy facilities located in the coastal zone.

The Coastal Zone Management Act of 1972 (CZMA)³ is an attempt by the federal government to reconcile these, and other opposing concepts. The CZMA called upon the states to devise a management program which endeavored to "achieve wise use of the land and water resources of the coastal zone [while] giving full consideration to ecological, cultural, historic, and aesthetic values as well as to the needs for economic development."⁴ The CZMA Amendments of 1976⁵ require the specific consideration of the national interest involved in the planning for, and in the siting of energy facilities in, or which significantly affect the coastal zone, and which are necessary to meet requirements that are other than local in

nature.⁶ The state's task is fairly well described, yet intensely complicated.

Energy facilities significantly impact local, state, federal, and perhaps international interests. Although local governments and citizens will be most immediately affected by the siting of an energy facility, it is doubtful they have the resources and expertise to adequately assess the far-reaching implications of an energy facility sited in their neighborhood. Inasmuch as the siting of energy facilities affects the national interest, considerations of other than a local nature must be encountered.⁷ Thus, there are two levels of concern to be addressed. First is the question of whether an energy facility is to be located in the coastal zone, a question affecting all levels but with important national significance. Second is the question of where such a facility will be located, a question with important local and state significance.

This chapter encounters these two questions as they relate to the general siting of LNG facilities. It will discuss the development of LNG in Oregon as it is, or may be, affected by various important studies and reports, various statutory and regulatory schemes on the federal and state levels, and recent judicial and administrative decisions. It will conclude with recommendations for improvements in the Oregon Coastal Management Program and changes in the Oregon Revised Statutes.

Section II

LIQUEFIED NATURAL GAS

Liquefied natural gas (LNG) is natural gas that has been cooled to approximately -259°F , a temperature just below its boiling point. In this state the liquid occupies approximately 1/600th of its gaseous volume. Although the natural gas is compressed during the liquefaction process, it is generally stored and transported at pressures equal to or slightly greater than normal atmospheric pressure.⁸ Storage at this pressure lessens the stress placed on those facilities already subject to the cryogenic impact of LNG.

The natural gas may be recovered from any of three sources. "Associated gas" is that found intermixed with crude oil, "non-associated gas" is found in separate reservoirs, and a third type is that found in a pocket or "cap" above, yet separate from a crude oil deposit. Recovered natural gas not immediately consumed can be liquefied and either stored in peakshaving facilities or transported by ocean carrier.

Peakshaving facilities consist of one or more large storage tanks and liquefaction and vaporization equipment. Gas is received at the facility generally by pipeline. The gas is subjected to a number of purification processes to remove moisture, small debris particles, and other elements and compounds, such as the sulphur used to odorize the otherwise odorless vapor. The liquefaction process involves a lowering of the temperature contemporaneously with a reduction in pressure. The liquid is transported by pipeline to the specially constructed storage tank where it remains until the demand for natural gas increases in the colder months. Upon such an

increase in demand, the liquid is slowly vaporized through a heat exchange process and injected into a pipeline system for transport to the ultimate consumer. Although the specific technologies employed may vary among facilities, the basic principles are common to all. Peakshaving facilities do not need to be in the coastal zone.

An ocean transport facility, while possessing many of the components of a peakshaving facility, requires the added complexities of docking, harbor, and unloading facilities. Due to the water-dependent nature of this type of facility, siting in the coastal zone is essential. Cryogenic tanker vessels ranging from storage capabilities of 25,000 to 125,000 cubic meters dock at the "base load" facility. By way of off-loading arms, the LNG is pumped from the tanker directly to the storage tanks to await vaporization and injection into a pipeline system.⁹

IMPACTS OF AN LNG FACILITY

An LNG facility, as is true of all energy facilities, may significantly impact the surrounding area. From the commencement of construction, a facility may affect not only the environment but the socio-economic structure of the locality.

ENVIRONMENTAL IMPACTS

During construction of an LNG facility, the environmental impacts to the land are generally limited to those areas where grading, excavation, and cut-and-fill operations are necessary.¹⁰ It is usually imperative to make direct changes in the land surface, often resulting in alteration of slope stability and an increasing likelihood of soil erosion.¹¹ Roads and

enclosing dikes are necessary components of the facility.¹² The vegetative cover will be removed, both at the site and along the pipeline route. Soil stability will be upset,¹³ having long-range impacts in soil fertility¹⁴ and natural succession of plant species.¹⁵

Various other impacts can be expected in the coastal area where an LNG facility will likely be located. It is obvious that the coastal ecosystem abounds with life:

Marine organisms such as phytoplankton and zooplankton, shellfish, fish, marine and shore birds, and marine mammals abound in the coastal environment. Kelp beds are a habitat for numerous species of fish and invertebrates. Offshore rocks and islands serve as breeding and hauling out grounds for seals and sea lions and are important nesting areas for sea birds. Bays and estuaries serve an invaluable function as breeding grounds for fish and shellfish.¹⁶

Changes in coastal activity may have subtle, yet significant, effects on marine life in the area. The migration of cetaceans, for example, may be inhibited or altered by increased ocean activity.

Estuaries are an especially sensitive part of the coastal environment. The biological productivity of most estuarine areas is 15-30 times that of the open ocean and up to twice that of the best inland agricultural areas.¹⁷

As an example, Sally's Bend, the area adjacent to the Newport LNG facility, is one of the most productive estuarine areas in Oregon, perhaps a thousand times more productive than other areas in the Yaquina Bay.¹⁸

Construction in the estuarine areas can be expected to have significant impacts to that ecosystem. Siltation will occur from the site preparation, and other impacts are expected from the dewatering of concrete. Dredge-and-fill operations, necessary to widen and deepen the harbor channel, will

affect the hydrologic patterns, with potential impacts on the productivity of this fragile system. Increased noise during construction and operation of the facility can be expected, along with disruption of the visual aesthetic.

Careful consideration of these and other environmental impacts is essential to ensure the continued vitality of the coastal zone.

SOCIO-ECONOMIC IMPACTS

The secondary impacts of an LNG facility affect the socio-economic structure in the locality. These impacts

encompass commercial enterprises attracted to the area by the primary [facility] development, measures required for upgrading transportation facilities, housing to accommodate people drawn by temporary and permanent employment opportunities, and public services for all these activities. The secondary impacts . . . can be either positive or negative. Positive impacts include the increased employment, additional income, immigration of skilled labor, and increased economic diversification. Negative impacts are rapid population growth due to the labor intensive nature of construction work, increased unemployment after initial construction work, labor shortages in [other] industries because labor is drawn to [the] higher pay, development into a single industry community, the pressure of rapid growth on community infrastructure, and the need for local services before tax producing industries are operating. Generally, the advantages . . . accrue to the larger region involved, whereas the disadvantages tend to be localized in the vicinity of the development.¹⁹

A peakshaving facility, while employing numerous people during the year-long construction process, requires only about a dozen people during operation. Thus the secondary impacts are generally short-term. An importation facility, on the other hand, has more components which require more employees for a longer period of time during construction. It is likely that a few more people will be necessary during operation, however the secondary

impacts will generally still be less than for a refinery or an oil platform fabrication facility.

The secondary impacts depend in large part upon the increased industrialization of the area brought by, and in support, of the LNG facility. Larger communities with established businesses and a certain amount of existing industrialization will be capable of dealing with these secondary impacts more easily than a small community dependent upon small scale commercial fishing.

The secondary impacts are an essential consideration in the siting process. Special attention must be focused on the smaller coastal communities where the impacts will be more dramatic.

The local comprehensive plans currently being formulated under the Oregon Coastal Management Program could attempt to deal with the likely consequences of an LNG facility. This presupposes, however, that a community will know whether a facility will be sited in its neighborhood. Advanced and conscientious planning is essential for the protection of the coastal zone. An inventory of potential energy facility sites likely to be located in the coastal zone is necessary to assist in this planning process.

SAFETY

Perhaps the most insidious impact accompanying an LNG facility is the fear that a catastrophic accident may occur.²⁰ Such an accident may result from a breach in the storage tank, an ocean carrier collision, or a malfunction in the unloading equipment.

LNG, while not flammable as a liquid, readily vaporizes when exposed to an external heat source (anything above -259°F).²¹ In its liquid state it is heavier than air. Released LNG will thus tend to collect in low-lying areas such as basements, sewers, and land depressions. Upon contact with a heat source, including water, soil, and air, the vaporized gas will expand approximately 600 times its liquid volume. "Unconfined, the vapor mixed with air is not explosive, but in a mixture of five to fifteen percent vapor to air it is highly flammable."²² In the presence of an ignition source, the cloud of gas will flash back to its source with a resulting explosion and intense fire. The devastating effects will be greatly enhanced if the cloud has an opportunity to be carried by the prevailing wind to a populated area. The potential danger is further increased when LNG facilities are located within a close proximity to a populated area. The opportunity for timely evacuation is diminished by that proximity and the velocity of the prevailing wind.

CLEVELAND ACCIDENT, 1944

The first and only LNG accident in this country to cause off-site damage and injury occurred on October 20, 1944, in Cleveland, Ohio.²³ The disaster was caused by the collapse of one of four tanks located on the site.

The site was selected because it was already owned by the East Ohio Gas Company and was located on the gas distribution system. The tanks were placed on a small site in a densely populated and highly industrialized section of town. The inner tanks were made of a nickel alloy steel of at least 3.5% nickel and less than .09% carbon.²⁴ On the day of the catastrophe, the wind was blowing at 19 to 26 kilometers per hour.

Vapor and liquid were released from Tank 4. It then collapsed, spilling 4,200 cubic meters of LNG.

There was a "whoosh," a dull red glow, and a slight earth shock. The vapor clouds spread in all directions, some hugging the ground while others rose above it. The clouds suddenly ignited with orange-yellow flashes. Then a great rush of flames generated waves of heat powerful enough to blister buildings a mile away.²⁵

The liquid flowed down an adjacent street where some entered the storm sewer, vaporized, and exploded. Other vapor continued down the street and ignited.

Approximately 20 minutes after the first tank failure, the legs holding an adjacent tank collapsed from the heat, releasing an additional 2,100 cubic meters of LNG. "The subsequent explosion shot flames more than half a mile into the air. The temperature in some areas reached 3000°F."²⁶

Ten minutes later another explosion in the yard caused

a series of explosions in sewers, underground conduits, and basements. Streets were blown up, manhole covers hurled into the air, water lines broken, and windows shattered. One explosion opened a crater 25 feet deep, 30 feet wide, and 50 feet long swallowing a fire department pumper and ripping a hole in one of the main intercept sewers. Smaller blasts continued for several hours.²⁷

The area directly involved was about 0.8 kilometers square, "of which about 30 acres were completely devastated; everything combustible burned."²⁸ Seventy-nine houses, two factories, seven trailers, and one tractor were totally destroyed. Thirty-five houses and 13 factories were partially destroyed. The deaths totalled 130, with 225 injuries. Property damage was estimated at \$7 million.²⁹ The National Fire Protection Association reported there might have been more extensive loss of life had the explosion occurred one hour later. At the time most children were in

school and most people were at work. The fact that the wind was blowing away from the congested part of the area likewise lessened the impact.

The above discussion is intended to illustrate the power of ING. Although there has not been an accident of this proportion since 1944, the lessons to be learned are apparent. Facility design continues to be upgraded as the technology develops. Inasmuch as there is no way to accurately predict the likelihood of a tank failure, and since the breach of an ING storage tank is possible, attention must be focused on the siting of ING facilities to ensure the public safety and welfare. Facilities should be sited away from populated areas. This is particularly important when one considers that a single ING storage tank today is capable of holding 10 times the amount of ING released by the first tank failure in the Cleveland spill.³⁰

Section III

ING FACILITY DESIGN AND SITING STANDARDS

The design of ING facilities has undergone various changes since the Cleveland spill. This is primarily due to a better understanding of cryogenics as a result of the space program in this country. The materials used in the construction of storage tanks is now 9% nickel alloy steel as opposed to 3.5% nickel alloy steel used in 1944. Stainless steel piping is used exclusively for any transport of ING.

The national standard for ING facility design and construction is the National Fire Protection Association (NFPA) Standard Number 59A. This standard is incorporated by reference in the regulations of the Materials Transportation Bureau (MTB) in the Office of Pipeline Safety Operations, United States Department of Transportation.³¹

The NFPA standard "applies to the design, construction, and operation of facilities at any location for the liquefaction of natural gas and the storage, vaporization, transfer, handling, and truck transport of liquefied natural gas (ING)."³² Although the technical aspects are beyond the scope of this chapter, the general plant considerations are of interest.

The standard enumerates a few "factors to be considered in selection of plant site locations."³³ They are very general and provide little or no meaningful guidance. The factors include accessibility to the plant by means of at least one all-weather vehicular road; "the degree to which the plant can, within the limits of practicality, be protected against the

forces of nature"; consideration for the safety of plant personnel and the surrounding public; and the minimum clearances stated between the various pieces of equipment and the property lines.³⁴

The NFPA standard provides for an impoundment area around a storage tank sufficient to contain the volume of liquid in a full tank.³⁵ A containment dike of compacted earth, concrete, or metal is required.³⁶ The only consideration regarding the impoundment area siting is that it be designed "to prevent a radiation flux from a fire over an LNG impounding area from exceeding 10,000 BTU/Hr/Ft² at a property line which can be built upon when ambient atmospheric conditions are zero wind speed, 70°F temperature and 50 percent relative humidity."³⁷ Other site considerations are apparently left to the utility company. Serious questions have been raised regarding the prudence of such a procedure which leaves other site considerations solely to the builder.

GAO REPORT

The United States General Accounting Office (GAO) recently reported to Congress on Liquefied Energy Gas Safety.³⁸ The purpose of the report "was to determine whether, under current practices and regulations, the public is adequately protected from the dangers of LNG and LPG."³⁹ The GAO reviewed the present standards governing the construction of LNG facilities, conducted laboratory and field experiments, reviewed the existing safety literature, and received comments from agency officials, and industry and citizen organizations.

The report generally concluded that the standards for the construction of LNG facilities are inadequate, that the public is not adequately protected

from the dangers accompanying LNG, and that LNG facilities should be located in remote areas.⁴⁰

Two main problems were discovered with the current standards for the construction of LNG facilities. First, the standards regarding resistance to natural forces are inadequate. These standards essentially are the same as those for inhabited commercial buildings. The study found that the probability of natural forces exceeding the construction standards at a given site in a given year is low. "However, the probability that the standards will be exceeded some time at some facility increases with the number of facilities and with the number of years each facility operates."⁴¹ Thus, "it is virtually certain that during their lifetime many of them will experience natural forces greater than those the [Uniform Building Code] standards require them to withstand."⁴² The study found that (1) "large LNG tanks made of steel are much less resistant to natural forces than those made of prestressed concrete";⁴³ (2) that the "outer steel walls in double-wall tanks are not normally made of material designed to withstand the intense cold,"⁴⁴ and in the event of an inner tank failure, "the outer tank is almost certain to rupture from the pressure and thermal shock";⁴⁵ (3) that the "steel outer shells could be penetrated by some tornado-borne missiles";⁴⁶ and (4) that "[t]here is no reason why storage tanks in densely populated areas, holding large amounts of highly hazardous materials, should have to satisfy very much weaker standards for resistance to natural phenomena or sabotage . . . than do nuclear plants in remote areas."⁴⁷ Inasmuch as most, if not all, LNG facilities in operation today are based on NFPA Standard 59A, these criticisms go to the heart of that standard.

The second inadequacy in the building standards relates to the construction of containment dikes. The GAO found that most of the dikes presently built according to NFPA Standard 59A are designed to contain LNG spilled from a relatively slow leak: "[t]hey cannot contain the surge of [LNG] from a massive rupture or collapse of a tank wall."⁴⁸ According to calculations, the greater the distance between the dike wall and the storage tank, the greater the potential that liquid will surge up and over the wall.⁴⁹

On the other hand, although a high dike wall close to the tank will diminish the possibility of dike overflow,⁵⁰ there will be less opportunity for rapid vaporization and dispersion, resulting in a longer-lasting fire in the containment area. Of course, if more than one tank within an impoundment area ruptures at once, the dike overflow will be greater.⁵¹ Similarly, in the event the storage tank is destroyed by a natural phenomenon, e.g., by earthquake, it is possible the containment dike will also be destroyed.⁵²

The dike standards are also inadequate to contain spigot flows resulting from punctures near the top of the tank. The spigot flow may be able to arc over the dike and escape containment. The GAO found it impossible to accurately calculate the friction in a hole, one criterion that will influence such flows, and concluded "the only safe criterion is one which ensures that no fluid will arc over the dike from the spigot effect, even if there is no friction in the hole."⁵³

The GAO found that the design failings of the NFPA standard would be eliminated if LNG facilities were located in the ground. "Liquid spills from inground tanks are nearly impossible."⁵⁴ Problems such as frost heave in cold areas and earthquakes in seismically active areas must be encountered.

The GAO recommends that all new LNG facilities be located in remote areas, and that no existing LNG storage facilities in other than remote areas be expanded in size or in use.⁵⁵ If large LNG facilities are built in other than remote areas, or if existing facilities are expanded in size or in use, the study recommends that all storage tanks be "in the ground with the highest level of fluid below ground level,"⁵⁶ or that all tanks be "built and operated to standards similar to those applied to the construction and operation of nuclear plants."⁵⁷ The study further recommends that legislation be enacted extending federal jurisdiction to cover all LNG storage facilities which are presently not covered by federal regulation.⁵⁸

STANDARD CHANGES

The Materials Transportation Bureau issued advance notice of proposed rulemaking on April 21, 1977, regarding adoption of new federal safety standards for LNG facilities.⁵⁹ The draft regulations are based in part on NFPA Standard 59A. However, they go far beyond the NFPA standard "by imposing more stringent exclusion zone requirements and other plant design requirements, particularly with respect to storage tanks, impounding systems, and environmental forces."⁶⁰ Although issued more than a year prior to the final LNG safety report of the GAO, the proposed regulations address many of the issues raised by the GAO report.

The requirements of the proposed regulations are stated in terms of performance standards rather than specific design requirements, as in the NFPA standard. This prescribes the adequate level of safety that must be achieved, yet allows the industry to develop and use improved technological

means to meet the required standards.

The regulations will be adopted (if at all) under the Natural Gas Pipeline Safety Act of 1968.⁶¹ Due to the limited jurisdiction of that Act, the regulations would only apply to "LNG facilities which are used in connection with a system for pipeline transportation of natural gas to consumers."⁶²

The main purposes of the proposed regulations are: (1) to protect "persons and property near a facility from thermal radiation caused by ignition of a major spill of LNG";⁶³ (2) to protect "persons and property . . . from dispersion and delayed ignition of a natural gas cloud emanating from a major spill of LNG";⁶⁴ and (3) to mitigate "the potential for a catastrophic spill of LNG."⁶⁵ The standards contained in the proposed regulations are much more complete than the NFPA standard. They address the critical areas of LNG facility siting and provide guidance upon which to base the siting decision.

Section IV

LNG FACILITY SITING IN OREGON

There presently exist two LNG peakshaving facilities in Oregon. Despite this fact, the state legislature has yet to specifically address the issue of LNG facility siting.

Natural gas is primarily regulated by the federal government. Under the Natural Gas Act,⁶⁶ the Federal Energy Regulatory Commission (formerly the Federal Power Commission)⁶⁷ has authority over "the transportation of natural gas in interstate commerce . . . for resale for ultimate public consumption . . . , and . . . natural gas companies engaged in such transportation or sale" ⁶⁸ Liquefied natural gas is considered to be natural gas for purposes of this Act.⁶⁹ However, the Hinshaw Amendment provides that the Natural Gas Act shall not apply to any person engaged in

the transportation in interstate commerce, or the sale in interstate commerce for resale, of natural gas received by such person from another person within or at the boundary of the State if all the natural gas so received is ultimately consumed within such State, or to any facilities used by such person for such transportation or sale, provided that the rates and service of such person and facilities be subject to regulation by a State commission.⁷⁰

The so-called intrastate facilities are thus exempt from federal regulation provided the state adequately regulates them.

The state legislature has given primary authority for energy facility siting to the Energy Facility Siting Council (EFSC) in the State Department of Energy.⁷¹ The stated policy of ORS Chapter 469 is

to exercise the jurisdiction of the State of Oregon to the maximum extent permitted by the United States Constitution

and to establish in cooperation with the Federal Government a comprehensive system for listing, monitoring and regulating of the location, construction and operation of all energy facilities in this state.⁷²

Although the EFSC jurisdiction extends to many types of facilities, LNG facilities are not included in that authority. The definition of energy facility includes pipelines used for LNG, but only if they are "six inches or greater in diameter, and five miles or longer in length."⁷³ Thus, a peakshaving facility, such as that at Newport, with a pipeline connection of 4.6 miles in length, escapes EFSC jurisdiction.

EFSC is the ideal state agency to regulate LNG facilities and their siting. It presently has authority over nuclear installations; electrical power generating plants; solar collecting facilities; and various pipelines for the transportation of crude petroleum, natural or synthetic gas, geothermal energy forms, and other fossil energy resources.⁷⁴ Thus, EFSC has the means and expertise necessary for the proper regulation of LNG facilities.

The process for the siting of energy facilities exists within the EFSC framework. A site certificate is essential prior to the construction or expansion of an energy facility. Before a site certificate can be issued, however, EFSC must make specific findings after it has found that the proposed facility meets the following standards:

1. There will be a need for the proposed energy facility based, upon evidence that:

(a) There will be a demand for the energy to be supplied by the proposed energy facility, demonstrated by demand forecasting evidence which;

(A) Identifies the contribution of major customer classes to total demand; and

(B) Explains how total demand results from assumptions made regarding various factors which influence energy demand including, but not limited to, population levels, personal income levels, employment levels, energy prices and the effects of conservation and alternative energy programs likely to be in effect during the demand forecasting period.

2. Risk of injury to the public health and safety in Oregon, or in adjacent areas that might be directly impacted, from the construction, operation or retirement of the facility will be reduced to that extent which is reasonably practicable.

3. Reasonable foreseeable disruption to and adverse impacts upon the environment in Oregon, or in adjacent areas that might be directly impacted, including but not limited to those caused by discharges of chemicals, waste, heat, moisture, sanitary wastes and radioactivity from the construction, operation and retirement of the facility will be reduced to that extent which is reasonably practicable Locations of endangered species, whose continued existence would be threatened by the project, may not be used.

4. Beneficial use of wastes and by-products will be made.

5. Siting will conform to statewide planning goals and comprehensive land use plans and zoning ordinances of political subdivisions in which the facility is to be located.

6. Historic or archaeological sites are not to be adversely impacted if the facility can be relocated.

7. Water use shall not infringe on existing water rights of others.

8-9. The applicant must have the organizational, managerial, and technical expertise and the financial ability to construct, operate and retire the proposed facility.

10. (a) The applicant has identified the major and reasonably foreseeable socio-economic impacts on individuals and communities located in the vicinity of the proposed facility resulting from construction and operation, including but not limited to anticipated need for increased governmental services or capital expenditures.

(b) The affected area can absorb the projected industrial and population growth resulting from construction and operation of the facility.

These general standards are relevant to an LNG facility.

Other aspects of EFSC provide for public involvement in the important siting decision. The Council is comprised of members of the public,⁷⁷ public notice⁷⁸ and hearings⁷⁹ regarding the proposed facility are mandated, and provision for public intervention is made. LNG facilities will significantly affect the citizens of this state. Their involvement in the siting decision is essential.

In order to accomplish the stated policy regarding the siting, construction, and operation of energy facilities in Oregon, the jurisdiction of EFSC should be substantially broadened to include all aspects of the siting, construction, and operation of LNG facilities.

At present, regulation and oversight of LNG facilities are accomplished through the State Fire Marshall (SFM) and the Public Utilities Commission (PUC). The SFM bases its LNG authority on ORS 476.030, which provides that the SFM shall enforce all statutes, and make rules and regulations relating to the prevention of fire⁸⁰ and the storage of combustibles and explosives.⁸¹ Thus any substance with the potential of causing fire is within the regulatory authority of the SFM. ORS 476.120 provides that the SFM, "in making rules and regulations establishing minimum standards for the protection of life and property against fire, shall consider as evidence of generally accepted standards the applicable standards prescribed. . . by the National Fire Protection Association."⁸² In keeping with this statute, the SFM has adopted NFPA Standard 59A as the basis of the regulation of LNG.⁸³ The SFM makes inspections to ensure compliance with this standard. The siting decision involves the SFM only as it relates to the few considerations in NFPA Standard 59A.⁸⁴

A subdivision of the state can be exempted from SFM regulation if it "has enacted adequate regulations generally conforming to state and national standards concerning fire prevention, fire safety measures and building construction requirements for safety, and if the governmental subdivision provides reasonable enforcement of its regulations"⁸⁵ At present there are four exempted areas, one of which is Portland, the site of the Linnton peakshaving facility. The SFM maintains no authority over that plant.

The PUC is the other state agency with authority over LNG.⁸⁶ The PUC has the power to require, by rules or regulations, anyone "engaged in the management, operation, ownership, or control of facilities for the storage or treatment of gas to be transmitted or distributed by pipeline . . . to construct, maintain, and operate every pipeline, plant, system, equipment,

or apparatus"⁸⁷ in a way that protects and safeguards the health and safety of anyone who may be affected by the operation of the facility. The PUC has the authority to adopt standards regarding construction and equipment of facilities, prescribe any requirements regarding safety or other types of devices, and may require "the performance of any other act which seems . . . necessary or proper for the protection of the health and safety of all employees, customers, or the public."⁸⁸ The PUC is the state commission which allows the Hinshaw Amendment of the Natural Gas Act to exempt the intra-state gas facilities from federal jurisdiction.

The scope of authority of the PUC is extremely broad. It is the lead agency in the state regarding public utilities and is involved in the siting of LNG facilities. The PUC has adopted NFPA Standard 59A indirectly through the adoption of the MTB regulations regarding pipeline facilities.⁸⁹ Thus, its involvement in the siting decision is likewise limited.

In the light of the inadequacies of NFPA Standard 59A pointed out by the GAO,⁹⁰ the SEM and the PUC, if they are to retain jurisdiction over LNG, should take steps to amend their regulations, either by incorporation of the proposed MTB regulations⁹¹ in lieu of the NFPA standard, or by overcoming the deficiencies of the NFPA standard through supplemental regulations.⁹² Within the new regulations, the issues of thermal and vapor exclusion zones and siting in remote areas should be given priority.

The state of Massachusetts has adopted regulations for the siting of intra-state LNG storage facilities similar in some respects to the proposed MTB regulations. The issues of exclusion zones and population density

are addressed by the Massachusetts Energy Facility Siting Council regulations.

The natural gas facility inspection functions of the PUC should be shifted to EFSC. Under the existing EFSC statutes, this would not constitute a change in EFSC authority. EFSC currently has continuing inspection responsibility over the site for which a site certificate is issued and may inspect the site at any time.⁹³ The rate regulation and contract oversight functions of the PUC respecting natural gas would continue as they presently are.

The result of the expansion of the EFSC jurisdiction over all aspects of liquefied natural gas will be an expedited and consistent process capable of ensuring the conscientious development of LNG facilities in Oregon. This will fulfill the state's policy regarding energy facilities. Certification under the Hinshaw Amendment of the Natural Gas Act for intrastate gas facilities will continue. More importantly, the maximum possible protection against the possibility of an LNG accident will be provided to the public through the adoption of new LNG regulations which specify thermal and vapor exclusion zones and mandate that LNG facilities be located in remote areas.

Section V

THE CALIFORNIA LNG ACT

The state of California has addressed LNG terminal siting through the California Liquefied Natural Gas Act of 1977.⁹⁴ Prior to the enactment of this Act, various state and local agencies had authority regarding zoning, planning, and regulation of environmental quality with respect to determining or approving the location of an LNG facility.⁹⁵

The Act designates the Public Utilities Commission (PUC) as the single permitting agency⁹⁶ for the siting, construction, and operation of the one initial LNG terminal in California.⁹⁷ The law requires the California Coastal Commission to identify and evaluate the potential onshore sites⁹⁸ and transmit this report to the PUC as a recommendation.⁹⁹ The recommendation is to contain a ranking of the potential sites.¹⁰⁰ From this recommendation the PUC will issue a permit for the construction of the terminal at the highest ranked site, unless it is determined that it is not feasible to complete construction and commence operations at the higher ranked site in sufficient time "to prevent the significant curtailment of high priority requirements for natural gas and that approval of the lower ranked site will significantly reduce such curtailment."¹⁰¹ "High priority requirements for natural gas" are "those requirements that, when satisfied, will maintain employment, essential residential consumption levels, and air quality."¹⁰² The PUC is not required to issue a permit "unless it finds that to do so is consistent with the public health, safety, and welfare."¹⁰³ It may "impose such conditions on the issuance of the permit as may be necessary or appropriate to ensure the public health, safety, and welfare."¹⁰⁴

The Act specifically details the criteria to be applied to the siting of the terminal in terms of population density:

(1) Population density shall be not greater than an average of ten persons per square mile for a distance of one mile outside the perimeter of the site on which the offloading, regasification, and storage facilities for LNG will be located.

(2) Population density shall be not greater than an average of sixty persons per square mile for a distance of four miles outside the perimeter

(3) The terminal shall be located so that no marine vessel transporting LNG would be required or permitted in the normal course of marine operation, according to the plan of operations filed by the applicant . . . , to pass closer to areas of population density than the distances specified in paragraphs (1) and (2).¹⁰⁵

The right of eminent domain is granted to the applicant to acquire land for the construction and operation of the facility, access roads, lines, and related facilities,¹⁰⁶ and to restrict¹⁰⁷ or reduce¹⁰⁸ population density and structures in the surrounding area in compliance with the siting criteria. The costs of the investigation and decision regarding the location of the site will be borne by the applicant.¹⁰⁹

The California LNG Act seeks at once to expedite the process involved in the siting, construction, and operation of LNG terminals by investing the entire process exclusively to the PUC.¹¹⁰ The Act simultaneously ensures that such facilities will be located in areas remote from human population "in order to provide the maximum possible protection to the public against the possibility of accident."¹¹¹

The basic considerations and some of the provisions of the California LNG Act should be adopted by the state of Oregon. The identification and evaluation of potential sites for LNG terminals should be made by EFSC. Rather than bifurcating the siting process, however, EFSC should also have authority to make the siting decision and issue a permit. The

criteria upon which the siting decision will be made should be explicitly stated in the Oregon ING Act in terms of population density. Further requirements regarding thermal and vapor exclusion zones should be explicitly stated in adopted regulations on the order of those proposed by the MTB.

Section VI

PREEMPTION

The Federal Energy Regulatory Commission (FERC) is of the opinion that the California LNG Act is unconstitutional. In a memorandum published in May, 1978,¹¹² the Act was stated to be unconstitutional since it "intrudes into an area where the Congress of the United States, pursuant to its power to regulate commerce, . . . has preempted state regulation, and therefore by virtue of the supremacy clause . . . state law must give way to Federal law and regulation."¹¹³ FERC bases its conclusion on the comprehensive scheme of regulation which Congress has enacted through the Natural Gas Pipeline Safety Act of 1968,¹¹⁴ the Natural Gas Act,¹¹⁵ the Tanker Act,¹¹⁶ the Dangerous Cargo Act,¹¹⁷ and the Ports and Waterways Safety Act of 1972.¹¹⁸ It is doubtful that any section of the California LNG Act intrudes into these preempted areas.

The motivation for the enactment of the California LNG Act was primarily to provide the maximum possible protection to the public against the possibility of an LNG accident.¹¹⁹ The Act provides this protection by detailing the criteria to be considered in the siting of an LNG facility in furtherance of a state policy regarding the proper utilization of land. Land use planning and zoning are functions of the state's exercise of its police power.¹²⁰ The protection of the citizens of a state are likewise a function of the police power, and are not for the federal government except in the proper exercise of some constitutionally enumerated power, e.g., the commerce power. Although Congress, in the above mentioned acts, has addressed the issue of safety, it has specifically chosen not

to address the issue of the location of an LNG terminal. This is likely due to the fact that the question of facility siting is one of land use planning, a state matter.

NATURAL GAS PIPELINE SAFETY ACT OF 1968

The Natural Gas Pipeline Safety Act of 1968 (NGPSA)¹²¹ provides for the establishment of federal standards for the transportation of gas in pipeline facilities. Section 3(b) states:

Such standards may apply to the design, installation, inspection, testing, construction, extension, operation, replacement, and maintenance of pipeline facilities Whenever the Secretary shall find a particular facility to be hazardous to life or property, he shall be empowered to require the person operating such facility to take such steps necessary to remove such hazards.¹²²

The NGPSA specifies so many areas for which standards may apply that to infer the inclusion of siting on the list would clearly expand the scope of the Act beyond the intent of Congress.

It is apparent that Congress did not intend the Secretary to have authority over the siting of pipeline facilities. Section 2(4) defines "pipeline facility" and concludes by stating that "'rights-of-way' as used in this chapter does not authorize the Secretary to prescribe the location or routing of any pipeline facility."¹²³ The Secretary is certainly empowered to prescribe standards for the design and construction of pipeline facilities.¹²⁴ Further, these standards may influence the ultimate siting decision by prescribing conditions that could not be met in certain locations. However, it is clearly outside the statutory authority of the Secretary to prescribe the location of a facility.¹²⁵

This position is further supported by the legislative history of the NGPSA¹²⁶ which states that the purpose of the bill is "to provide for the prescription and enforcement of minimum Federal safety standards for the transportation of natural and other gas by pipeline and for pipeline facilities."¹²⁷ The bill was needed to fill a regulatory gap in the transportation of gases by pipeline, the "only significant mode of transportation [which was] beyond the reach of effective comprehensive safety regulation."¹²⁸ It was not intended to authorize the Secretary to determine the location of ING facilities. Jurisdiction over the siting of pipeline facilities was expressly denied the Secretary by the Act.¹²⁹ Insofar as the California ING Act addresses the siting of an ING facility, it does not conflict with the Natural Gas Pipeline Safety Act of 1968.

NATURAL GAS ACT

The Natural Gas Act¹³⁰ was enacted in 1938, pursuant to the commerce power of Congress,¹³¹ to regulate natural gas companies¹³² and the transportation and sale of natural gas in interstate and foreign commerce.¹³³ The Act requires authorization by the Federal Energy Regulatory Commission (FERC) for importation of natural gas from a foreign country or for exportation to a foreign country.¹³⁴ An application for such authorization may be granted "in whole or in part, with such modification and upon such condition as the Commission may find necessary or appropriate."¹³⁵ Supplemental orders in the premises may be made after opportunity for a hearing, and for "good cause shown."¹³⁶ A "certificate of public convenience and necessity" is required before a natural gas company may engage in the transportation or sale of natural gas, or undertake the construction or extension of a facility.¹³⁷ The certificate is essential to any operations

under the Act and shall be issued to an applicant "able and willing properly to do the acts and to perform the service proposed and to conform to the provisions of [the Act] and the requirements, rules, and regulations of the Commission."¹³⁸

The Natural Gas Act contains no statement regarding the siting of a natural gas facility. Nor does it specifically empower FERC to direct the siting of a facility. The FERC Organic Act¹³⁹ similarly fails to give the authority to specify the location of an LNG facility.

FERC argues that the authority to issue certificates of public convenience and necessity and the eminent domain power given by section 7(h)¹⁴⁰ empower it to make the siting decision. There is little dispute over the fact that FERC may impose safety requirements on an applicant under authority of section 7(e),¹⁴¹ which empowers FERC "to attach to the issuance of the certificate and to the exercise of the rights granted thereunder such reasonable terms and conditions as the public convenience and necessity may require."¹⁴² Perhaps this could be interpreted to mean that FERC may attach a condition mandating that the location of an LNG facility site be in a remote area. However, the statutory language does not support the proposition that FERC may decide the specific location of an LNG facility site. If Congress intended FERC to prescribe the location of a facility it seems likely it would have included language to that effect. FERC could deny approval of an application for a facility at a particular site or could attach conditions that would make it impossible or infeasible to site in a certain location. However, the ultimate siting decision appears to be out of FERC's hands.

This view is supported by the District of Columbia Court of Appeals in Distrigas Corporation v. FPC.¹⁴³ In that case the plaintiffs were directed to file applications for certification of their ING facilities. In discussing the Commission's authority under the Natural Gas Act section 3, regarding the importation of gas, the court stated that the authority is "at once plenary and elastic."¹⁴⁴ This allowed the Commission to approve, deny, or approve with the addition of necessary and appropriate terms and conditions an application for a certificate. The court found that section 3 supplied the Commission "not only with the power to prevent gaps in regulation, but also with the flexibility in exercising that power."¹⁴⁵ This flexibility was far greater than if the corporations were subject only to section 7.¹⁴⁶

In light of this discussion, a company seeking certification of an ING importation facility may be subject to the greater authority of the Commission. However, the purpose of the Natural Gas Act does not support the conclusion that the Commission may make the siting decision. In Distrigas, the court found that

[i]t has long been recognized that the purpose of the Natural Gas Act was to "protect consumers against exploitation at the hands of natural gas companies." And this purpose was to be achieved by [Federal Power Commission] regulation "broadly complementary to that reserved to the States, so that there would be no 'gaps' for private interests to subvert the public welfare." We fully recognize, therefore, that this purpose must be the determinative guide in construction of the Act's regulatory scheme.¹⁴⁷

With this in mind, it is obvious that FERC's authority is to complement the states' reserved powers. Land use decisions are clearly states' powers. A condition to a certificate of public convenience and necessity regarding the precise location of an ING facility would not complement, but would usurp, the states' reserved powers. The authority to site ING facilities

is not within the scope of the Natural Gas Act, thus the California LNG Act does not collide with its provisions.

The eminent domain power that accompanies a certificate of public convenience and necessity does not clearly establish Congressional intent that FERC has authority to make the siting decision. The right of eminent domain has been viewed as an essential part of FERC's authority to require a natural gas company to provide additions and extensions of service in the convenience and necessity. The court in Thatcher v. Tennessee Gas Transmission Company¹⁴⁸ stated that the possession of the right of eminent domain "could well be considered necessary to insure ability to comply with the Commission's requirements as well as with all phases of the statutory scheme of regulation."¹⁴⁹ Only if the siting of LNG facilities is specifically within the statutory scheme of regulation could the eminent domain right be construed as evidencing Congressional intent to empower FERC to make the siting decision. As has previously been stated, the Natural Gas Act does not empower FERC to exercise such authority. Neither the language nor the purpose of the Act support such authority. The California LNG Act, therefore, does not impermissibly enter a field that has been totally preempted.

VESSEL SAFETY ACTS

The Tanker Act¹⁵⁰ and the Dangerous Cargo Act¹⁵¹ place the responsibility for the safe construction of LNG tankers and the handling and stowage of LNG in the Coast Guard. Although the Secretary has authority to promulgate rules and regulations to prevent collisions and to protect the environment from disaster following a cargo loss, no support for preemption of the siting authority of the state can be found. Authority is also found in the

Ports and Waterways Safety Act of 1972¹⁵² regarding the movement of vessels and the handling and stowage of ING, but no mention of siting authority is made. Thus, FERC's position regarding federal preemption of the state's land use decision regarding the siting of ING facilities by these vessel acts is unsupportable.

PREEMPTION GENERALLY

Preemption of a state's police power is not lightly to be inferred. In Huron Portland Cement Company v. City of Detroit,¹⁵³ the United States Supreme Court stated:

In determining whether State regulation has been preempted by Federal action, "the intent to supersede the exercise by the State of its police power as to matters not covered by the Federal legislation is not to be inferred from the mere fact that Congress has seen fit to circumscribe its regulation and to occupy a limited field. In other words, such intent is not to be implied unless the act of Congress fairly interpreted is in actual conflict with the law of the State."¹⁵⁴

Congress consistently has chosen not to include the facility siting decision among the panoply of powers given the various agencies by the aforementioned acts. In Tenneco, Inc. v. Public Service Commissioner,¹⁵⁵ the Fourth Circuit Court of Appeals addressed a preemption issue regarding the Natural Gas Pipeline Safety Act. Citing Huron Portland Cement, the court stated that

[p]reemption of all phases of interstate pipeline safety cannot be inferred from the fact that Congress has occupied a part of the field Federal regulation of an interstate carrier does not preclude state legislation affecting the same carrier unless (1) "the nature of the regulated subject matter permits no other conclusion," or (2) "the Congress has unmistakably so ordained."¹⁵⁶

The first test of preemption depends primarily on whether the state law obstructs the Congressional objectives.¹⁵⁷ As is evident from the discussion

of the applicable federal statutes, Congress has attempted to provide a unified scheme for all areas of federal regulation of natural gas but the siting decision by mandating the promulgation of standards for the design and construction of pipelines and facilities and for the transportation of gas in interstate facilities. The siting of ING facilities is only tangentially affected by these regulations and is not specifically mentioned in any of the federal acts. "The test of whether both federal and state regulations may operate, or the state regulation must give way, is whether both regulations can be enforced without impairing the Federal superintendence of the field, not whether they are aimed at the same objective."¹⁵⁸ Inasmuch as the land use decision of where to locate an ING facility does not obstruct the Congressional objectives and does not overlap any federal statute, preemption cannot be inferred.

As for the second test, whether Congress has unmistakably ordained that the states are barred from exercising their authority over the siting process, the statutes contain no specific mention of the siting of facilities. Only by remote implication can preemption be inferred.

A final consideration regarding the preemption question is whether the state law imposes an undue burden on interstate commerce. The issue was addressed by the Court in Huron Portland Cement¹⁵⁹ when it stated that "it must be borne in mind that the Constitution when 'conferring upon Congress the regulation of commerce, . . . never intended to cut the States off from legislating on all subjects relating to the health, life, and safety of their citizens, though the legislation might indirectly affect the commerce of the country'"¹⁶⁰ Perhaps the California ING Act

indirectly affects the commerce of the country, yet the provisions regarding the siting of LNG facilities are clearly within the powers of the state.

Inasmuch as there is no conflict with any existing statute, the California LNG Act appears to be constitutional. The National Oceanic and Atmospheric Administration (NOAA) in the Federal Department of Commerce agrees that the California LNG Act is constitutional. The provisions of the LNG Act were incorporated into the approved California Coastal Zone Management Program soon after their passage. At least impliedly NOAA supports the California LNG Act. It is essential to draft state legislation carefully so as to avoid a challenge of this nature.

Section VII

PROPOSED FEDERAL LEGISLATION

Since the publication of the GAO Report on LNG Safety, two bills have been introduced in Congress. Prior to the GAO Report, at least three other bills had been introduced. Each bill approaches the subject of LNG in a slightly different manner, conferring authority either on the United States Department of Transportation or the United States Department of Energy. The most recent bills appear to be the more comprehensive, and thus will be discussed here.¹⁶¹

H.R. 14399 seeks to amend the Ports and Waterways Safety Act of 1972¹⁶² by adding the "Liquefied Gas Facility Safety Act."¹⁶³ The purpose of the bill is

- (1) to establish a coordinated regulatory approach with respect to the location, operation, and maintenance of liquefied gas facilities;
- (2) to assure adequate protection for public health, safety, property, and the environment in the siting and operation of liquefied gas facilities;
- (3) to require that liquefied gas facilities are constructed and operated in compliance with minimum national standards; and
- (4) to enact a comprehensive Federal law governing liquefied gas liability and compensation.¹⁶⁴

The Act empowers the Secretary of Transportation to issue standards relating to all aspects of facility siting and operation.¹⁶⁵ It compels the Secretary to require that LNG facilities be "located in remote areas to minimize the danger to persons and property from a discharge."¹⁶⁶ This Act effectively broadens that authority of the Secretary of Transportation existing under the Natural Gas Pipeline Safety Act of 1968, which presently extends only to pipeline facilities.

Provision is made in the Act for involvement of the state prior to approval of a license to construct an LNG facility. The governor of the state in which the facility will be sited must approve the facility prior to the issuance of a construction license. States with an approved coastal zone management program may supersede the siting, construction, or operation requirements provided in the license if the state's "requirements are comparable to those established by the Secretary and will, in the judgement of the Secretary, protect the public health, safety, property, and the environment"¹⁶⁷ in keeping with this Act.

The Act establishes a "Liquefied Gas Compensation Fund."¹⁶⁸ It is a no-fault fund, liable for all damages exceeding \$200 million.¹⁶⁹ The first \$200 million of liability is the joint and several responsibility of the owner and operator of the vessel that discharges LNG.¹⁷⁰ However, liability may extend beyond the initial \$200 million if the discharge was a result of gross negligence, willful misconduct,¹⁷¹ or a violation of safety or construction standards or regulations.¹⁷² The Fund applies to owners and operators of LNG facilities in the same manner.¹⁷³ The Fund is authorized to sue in its own name.¹⁷⁴ It will be funded by charges collected by the facility operator from the owner of any LNG loaded or unloaded at that facility.¹⁷⁵ The fee is to be based on the heating value of the LNG but not to exceed two cents for each million British Thermal Units.¹⁷⁶ The Secretary shall also require the owner or operator of an LNG vessel using United States facilities or operating in United States navigable waters to provide evidence of insurance or financial responsibility.¹⁷⁷

The proposed Act is not to be interpreted to preempt the field of liability

or to preclude a state from imposing additional requirements or liability for a discharge of LNG resulting in damage or other costs within the state's jurisdiction.¹⁷⁸ Compensation under state or federal law precludes recovery under this Act as does compensation under this Act preclude any other recovery.¹⁷⁹

This Act appears to give adequate consideration to the state, while simultaneously providing for a comprehensive federal scheme respecting LNG facility siting.

S. 3597, the "Comprehensive Liquefied Energy Gas Siting Safety and Liability Act of 1978,"¹⁸⁰ will amend the Natural Gas Pipeline Safety Act of 1968. This Act is substantially the same as the House bill, calling for regulations and standards respecting LNG facilities that consider, among other things, the existing and projected population densities surrounding the proposed site.¹⁸¹ The Act allows "a responsible State agency having jurisdiction with respect to such sitings" to provide the state's approval prior to the issuance of "any permit for the construction of, or a license for the operation of" an LNG facility.¹⁸² Further, the state has authority to promulgate more stringent standards which do not conflict with the federal standards.¹⁸³

The Fund in this Act is supplied by collection of fees from the owner of the LNG facility not to exceed one cent per thousand cubic feet of gas received at the facility.¹⁸⁴ The owner and operator of a vessel are jointly and severally liable for damages arising out of an incident involving LNG from their vessel without regard to fault.¹⁸⁵ Similarly, the owner and operator of an LNG facility are jointly and severally liable without regard to fault.

for an accident involving the facility.¹⁸⁶ The liability limit is \$100 million unless there is gross negligence, willful misconduct, or violation of applicable federal standards, in which case the owner and operator are fully liable.¹⁸⁷ There is also a provision requiring demonstration of financial responsibility.¹⁸⁸

The Senate bill goes beyond this to amend the Ports and Waterways Safety Act of 1972 to include coverage of offshore LNG facilities.¹⁸⁹ It further addresses the issue of LPG facility siting,¹⁹⁰ as well as some other miscellaneous provisions.¹⁹¹

It is obvious from the above proposed legislation that the siting of LNG facilities must be in remote areas of low population density, and that a compensation fund is essential in the event of an accident. Notwithstanding the passage of either of these bills, there will be room for Oregon to regulate LNG facilities. The state of Oregon should consider the policies and details of the pending federal legislation in its efforts to update its LNG regulations. Specifically, the siting of LNG facilities should be in remote areas, and provisions for a compensation fund should be enacted.

Section VIII

LNG AT NEWPORT

There presently exist two LNG facilities in Oregon; one in Portland, on the Willamette River, and one in Newport, on Yaquina Bay. The facility in Portland was converted from a synthetic gas storage facility years ago without much public response. The Newport facility, however, was another matter.

The Newport facility was originally intended to be an importation terminal for the receipt of LNG from Alaska.¹⁹¹ The proposed sale of LNG was from Marathon Oil Company and Phillips Petroleum Company. Marathon was to gather its gas from its Kenai Field interests, while Phillips was to gather its gas from its North Cook Inlet Field. All the natural gas was to be transported through existing pipelines to an existing liquefaction plant at Nikiski, Alaska, where it would then be loaded for transport. The liquefaction plant is owned by Marathon (30%) and Phillips (70%).

Northwest Natural Gas Company planned to acquire a 29,000 cubic meter LNG tanker to carry LNG from Alaska to Newport. According to the contracts with Marathon and Phillips, the LNG was to be F.O.B. the tanker, as supplied by Northwest. The contract point of delivery was to be at the connection of the tanker's loading pipes and the Alaska plant. Risk of loss for, and title to the LNG was also to pass at this point. The contractual arrangements subjected the plant to a number of legal snags, including an adverse decision by the Federal Power Commission.

THE FPC DECISION

In March, 1974, Marathon and Phillips filed a conditional application pursuant to section 7 of the Natural Gas Act¹⁹² requesting authorization to sell LNG to Northwest. They concurrently, and in the alternative, filed a petition for either a declaratory order disclaiming the Federal Power Commission's (FPC) jurisdiction over the proposed sale, or an order waiving all requirements of the regulations under the Act.

Hearings were held regarding the application, with numerous intervenors¹⁹³ given the opportunity to participate. The hearings were divided into two phases: Phase I only addressed the jurisdictional issues; Phase II would only address the substantive issues. Phase II was never held due to the adverse ruling in Phase I.

The Phase I questions included:

- (1) Whether the transportation and liquefaction of the gas in Alaska, along with the related facilities, were subject to Commission certificate jurisdiction;
- (2) Whether the sale of LNG to Northwest in Alaska is a sale for resale in interstate commerce subject to Commission jurisdiction;
- (3) Whether the LNG transportation to Oregon by tanker is jurisdictional;
- (4) Whether the proposed sale will make Northwest a jurisdictional interstate pipeline;
- (5) Whether Northwest's facilities in Oregon for unloading, storage, and regasification of the LNG are jurisdictional.¹⁹⁴

The jurisdictional questions were important, because, prior to this transaction, Northwest was an intrastate distributor exempted from the provisions of the Natural Gas Act by the Hinshaw Amendment.¹⁹⁵ A determination by the FPC that the proposed sale was interstate commerce would affect all of Northwest's facilities in the state. In California v. Lo-Vaca Gathering Company,¹⁹⁶ the United States Supreme Court held that where

interstate gas flows in a commingled stream with intrastate gas, and a substantial part of that gas will be resold, the FPC has jurisdiction over the entire sale as a sale in interstate commerce. Thus, the commingling of interstate gas with intrastate gas exposes the entire operation to FPC jurisdiction.

ALASKA OPERATIONS

The question regarding whether the Alaska operations were jurisdictional was answered in the affirmative by the FPC. This ruling reversed the Administrative Law Judge (ALJ) determination that the liquefaction facility was a processing plant and thus the section 1(b)¹⁹⁷ exemption for the gathering and intrastate transportation pipelines behind-the-plant was not affected.¹⁹⁸ The FPC, however, found that the gas was of "pipeline quality" coming from the fields, as indicated by some intrastate sales from the pipeline prior to the liquefaction facility.¹⁹⁹ The liquefaction process did not change the quality of the gas, but merely changed its form to permit non-pipeline transportation. This made the liquefaction facility an integral part of the interstate movement of gas. Inasmuch as the facility was not considered to be a "plant," the pipelines must be jurisdictional, because they are not, and could not be, "behind-the-plant."²⁰⁰ The FPC subjected the Alaska facilities to its jurisdiction.²⁰¹

SALE FOR RESALE

The Commission affirmed the ALJ's decision that the sale of ING to Northwest was jurisdictional as a sale for resale of natural gas in interstate commerce.²⁰² The interstate commerce was determined to begin at the

wellhead in Alaska.²⁰³ The interstate sale began F.O.B. the tanker.²⁰⁴ Even though the tanker was found to be non-jurisdictional, that fact did not sever the interstate commerce to Oregon.²⁰⁵

TRANSPORTATION BY TANKER

The transportation of LNG by cryogenic tanker was found to be non-jurisdictional. The Commission has previously held that "it does not have jurisdiction over the transportation of LNG by means other than pipeline" because the Act was addressed to 'regulation of pipelines in order to eliminate demonstrated abuses rather than to the regulation of all modes of transportation in interstate commerce.'²⁰⁶ Further, since the tanker will travel primarily in international waters, the jurisdiction of the Commission does not apply.²⁰⁷ The FPC refused to treat that portion of the voyage within United States waters as jurisdictional, since it would result in an impractical bifurcated treatment of the journey.²⁰⁸

NORTHWEST'S STATUS

The FPC, again reversing part of the ALJ's decision, held that, under the existing contract and plan for delivery, Northwest's section 1(c) exemption as an intrastate distributor would be abrogated. The point of delivery where Northwest was to take title to and assume the risk for the LNG was at Nikiski, Alaska; thus Northwest would be receiving gas outside of Oregon.

The FPC stated that Northwest will not lose its exemption under the Natural Gas Act if it forms a subsidiary which will purchase the gas from Phillips and Marathon in Alaska, transport it to Oregon, and there resell it to

Northwest. Such a subsidiary would have to apply for section 7 certification of its sale of LNG in interstate commerce.²⁰⁹

NORTHWEST'S FACILITIES

The FPC found, again contrary to the ALJ, that since Northwest would lose its section 1(c) exemption, it would have to apply for section 7(c) certification for all its LNG facilities.²¹⁰

A point not raised in the opinion, but one which will further subject Northwest's facilities to the Commission's jurisdiction, regards the commingling of interstate gas with intrastate gas. Although Northwest is currently exempt from the Act as an intrastate distributor, at such time as it injects interstate gas into the pipeline, all of its facilities will become jurisdictional.

The FPC subjected the proposed sale of LNG from Alaska to Oregon to its jurisdiction.²¹¹ A petition for rehearing was denied.²¹² Marathon, Phillips, and Northwest did not want to be subject to FPC jurisdiction, and, after permission was granted by the FPC, Marathon and Phillips withdrew their applications.²¹³

THE NEWPORT FACILITY

The LNG facility at Newport was constructed in spite of the adverse opinion by the FPC on the jurisdictional questions surrounding the sale of LNG from Alaska. It was built as a peakshaving facility near McLean's Point on Yaquina Bay. Natural gas is removed from Northwest's overland pipeline, liquefied, and stored until the demand is increased. The plant is a few

meters from the bay, and could become an importation facility upon the formation of a shipping subsidiary, the purchase of an LNG vessel, the construction of docking and off-loading facilities, and the securing of shipment contracts for LNG. Northwest plans to convert the Newport facility into a marine importation facility in the coming years.

The peakshaving facility took three years of planning in which 12 public hearings were held in the Newport area alone.²¹⁴ According to Paul Howe, senior vice-president of Northwest, the plant cost \$15 million.²¹⁵ Northwest had to secure 32 local and state permits before construction could begin.²¹⁶ Among others, the Lincoln County Planning Commission granted a one year conditional use permit. That permit was subsequently modified to be a 25 year permit. Construction commenced in January, 1976, and was completed in June, 1977.²¹⁷

PEOPLE CONCERNED ABOUT LNG

In July, 1977, a lawsuit was filed by People Concerned About LNG against the United States Army Corps of Engineers and Northwest Natural Gas Company.²¹⁸ The action was filed in federal district court seeking declaratory and injunctive relief. The complaint challenged the legality of the construction of the LNG facility. The plaintiffs sought a permanent injunction prohibiting the liquefaction of natural gas or the importation or storage of LNG unless and until the Corps of Engineers prepared an environmental impact statement for the required dredging done by Northwest.²¹⁹

In discussing the impact statement, the court found that the LNG facility significantly affected the quality of the human environment.²²⁰ However,

the granting of the dredging permit "cannot be said to be a major Federal action nor can it be said to be so intertwined with the construction of the tank and storage facility as to federalize that facility for NEPA purposes."²²¹

The court denied relief for a number of additional reasons. First, the effect of an injunction against the Corps would require the replacement of the spoils; an act prohibited without a permit from the Corps under the Rivers and Harbors Act²²² and the Federal Water Pollution Control Act.²²³ According to Judge Burns, "Equity, it is said, will not do a vain thing."²²⁴ Second, the court could not enjoin Northwest from operating its plant because they were not subject to federal regulations, nor did the construction require any federal approval.²²⁵ Third, inasmuch as the facility had been approved by the relevant local and state agencies, and the \$15 million facility was substantially completed, the court exercised its equitable discretion and refused to grant relief.²²⁶ Fourth, the plaintiffs were barred by laches due to their unjustified delay together with the unjustified detriment on the defendants.²²⁷ Thus, the court entered a judgement dismissing the plaintiffs' complaint and entered judgement for the defendants.²²⁸

Section IX

FEDERAL COASTAL ZONE MANAGEMENT ACT

The Federal Coastal Zone Management Act (CZMA)²²⁹ is the framework imposed for the conscientious development of the coastal zone. The Act calls on each coastal state to devise a coastal management program to ensure wise development of the coastal zone.²³⁰ The Act provides for cooperation and coordination among the various federal agencies involved in coastal issues²³¹ and between federal agencies and the state in which a federally supported coastal activity is to occur.²³²

The approved Oregon Coastal Management Program (OCMP) was developed by the Department of Land Conservation and Development (DLCD). The primary components of the OCMP are the 19 Goals and Guidelines adopted by DLCD under the S.B. 100 mandate of 1973. These Goals and Guidelines were adopted to provide standards for local comprehensive plans by which land development in Oregon will occur.

The first 14 Goals and Guidelines address issues likely to be present throughout the state. Goal 15 applies specifically to the Willamette River Greenway. The last four goals, 16 through 19, concern specific coastal issues, addressing estuarine resources, coastal shorelands, beaches and dunes, and ocean resources. These four seek to conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of the areas to the people of the state. Inventory requirements, permissible uses, and priority of uses are specified in each goal.

All development in the state must be consistent with the Goals and Guidelines.

Thus, there are two levels of consistency required for the development of the coastal zone; federal consistency with the OCMP, and state consistency with the OCMP.

The federal consistency provisions in the CZMA require each federal agency to conduct or support any federally sponsored activity in the coastal zone in a manner consistent to the maximum extent practicable with the approved state coastal management program.²³³ These provisions further require each applicant for a federal license or permit required to conduct any activity affecting land or water uses in the coastal zone to certify that such activity complies with the state's coastal management program.²³⁴ The state is to notify the appropriate federal agency that the proposed development complies with the provisions of the coastal management program.²³⁵

Consistency must also occur on the state level. An administrative rule adopted by DLCD on September 15, 1978, established requirements for determining consistency of state permits with statewide planning goals. A state agency, prior to issuing a permit, is required to determine whether the proposed activity is consistent with the OCMP. When a local government has an Acknowledge Comprehensive Plan, the consistency determination must be with regards to that plan, unless the plan does not address or control the proposed activity. The activity must be consistent prior to the issuance of the permit.

Through the consistency provisions, the state coastal management program becomes the guide for development in the coastal zone. Cooperation and

coordination on the state and federal level ensure the effective management and wise development of the coastal zone. Consistency with the OCOMP must be assured by the various agencies involved in the LNG siting process.

Although the State Fire Marshall and the Public Utilities Commissioner are the two Oregon agencies specifically involved in LNG regulation, numerous other state agencies have input regarding the siting decision. These other agencies affect the siting decision through various environmental and land use statutes.

The Division of State Lands (DSL), for example, has authority to protect the resources of the public lands and waters.²³⁶ Accordingly, DSL issues permits for dredge-and-fill operations in the state's waters. The issuance of these permits may be made after consultation with other state agencies.²³⁷ Conditions that are necessary to protect and conserve the state's water resources may be imposed.²³⁸

Port authorities are also involved in the LNG facility siting decision. Port authorities are political subdivisions under ORS 777.005-.258. They have authority to contract with the Army Corps of Engineers regarding the maintenance dredging required to keep the harbor and channel open.²³⁹ They must give their consent before a federal dredging permit will be issued by the Corps. Port authorities are also involved in the promotion of commercial enterprises and maritime shipping into the port.²⁴⁰ Large-scale commercial shipping is essential in order to maintain an adequate cost-benefit ratio necessary to justify the maintenance dredging done by the Corps.

City and county governmental units affect the siting decision through their local comprehensive plans.²⁴¹ Numerous other agencies are similarly involved in the siting decision, mainly by way of the granting of a necessary permit. All permits must be consistent with the OCOMP.

THE PUBLIC TRUST

A recent Oregon case may affect the siting of an LNG marine terminal. In Morse v. Oregon Division of State Lands,²⁴² the city of North Bend applied to DSL for a permit to fill 32 acres of the Coos Bay Estuary in order to extend a runway at the North Bend Airport. The runway extension was not a water-dependent activity, as required by DSL rules, and a fill permit should not have been issued. The court held that the director of DSL erred in issuing the fill permit, stating that "[t]he Division is required to follow its own rules."²⁴³

DSL enacted a temporary rule which deleted the requirement of water-related activity. The application for the fill permit was renewed, and DSL issued a new permit. The permit was again appealed, and again reversed.²⁴⁴

The court discussed the water resource and the actions of DSL regarding it in terms of the "public trust":

Historically, lands underlying navigable waters have been recognized as unique and limited resources and have been accorded special protection to insure their preservation for public water-related uses such as navigation, fishery and recreation. Under the common law public trust doctrine, the public use of such waters could not be substantially modified except for water-related purposes.

By the terms of the public trust, submerged and submersible

lands were to be preserved for public use in navigation,
fishing and recreation.²⁴⁵

The obligation of the state as trustee of the public interest is inalienable. This restriction on the power of the state as trustee

is predicated not only upon the importance of the public use of such waters and lands, but upon the exhaustible and irreplaceable nature of the resources and their fundamental importance to our society and to our environment. These resources, after all, can only be spent once. Therefore, the law has historically and consistently recognized that rivers and estuaries once destroyed or diminished may never be restored to the public and, accordingly, has required the highest degree of protection from the public trustee.²⁴⁶

The highest degree of protection from the public trustee may well serve to exclude certain types of coastal development. In balance, a unique estuarine area may be more valuable for the public welfare in its natural condition than it will be with an LNG docking facility. The trust responsibilities must be carefully considered in the decision relating to the siting of LNG facilities, especially when these facilities will be located in fragile estuarine areas.

THE NATIONAL INTEREST

A competing notion to that of the public trust is the national interest in energy self-sufficiency. Herein lies the seemingly insoluble dilemma. The national interest is an essential consideration in the energy facility siting decision.²⁴⁷ Due to the water-dependent nature of an LNG marine terminal,²⁴⁸ this type of facility must be sited in the coastal zone. However, the impacts of such a decision may be extensive.²⁴⁹ The answer lies in the balancing of these competing interests.

The recent case of American Petroleum Institute v. Knecht²⁵⁰ addressed

the issue of the national interest as it relates to energy facilities and the preservation of the coastal zone. Plaintiffs brought the suit to enjoin the imminent approval of the California Coastal Zone Management Program. Plaintiffs contended, among other things, that the CZMA requires an affirmative commitment to the national interest.²⁵¹ The court stated that the CZMA was aimed at

the need for a rational planning process to enable the state, not private users of the coastal zone, to be able to make "hard choices." "If those choices are to be rational and devised in such a way as to preserve future options, the program must be established to provide guidelines which will enable the selection of those choices."²⁵²

The court went on to say that "[i]t is not a requirement that the state program expressly 'accommodate' energy interests."²⁵³ The program approval regulations make this more explicit:

The requirement should not be construed as compelling the States to propose a program which accommodates certain types of facilities, but to assure that such national concerns are included at an early stage in the State's planning activities and that such facilities not be arbitrarily excluded or unreasonably restricted in the management program without good and sufficient reasons No separate national interest "test" need be applied and submitted other than evidence that the listed national interest facilities have been considered in a manner similar to all other uses, and that appropriate consultation with the Federal agencies has been conducted.²⁵⁴

It is not essential that all proposed facilities actually be located in the coastal zone. The requirement is that those facilities be given consideration and not arbitrarily rejected.

In discussing the Energy Facility Planning Process,²⁵⁵ the Merchant Marine and Fisheries Committee stated:

State coastal zone programs should . . . specifically address how major energy facilities are to be located in the coastal zone if such siting is necessary. Second, the program shall include methods of handling the anticipated impacts of such facilities. The Committee in no way wishes to accelerate the location of energy facilities in the coasts; on the contrary, it feels a disproportionate share are there now 256

The National Oceanic and Atmospheric Administration specifically addressed the "adequate consideration" language of the CZMA by stating "while the primary focus of subsection 306(c) (8) is on the planning for and siting of facilities, adequate consideration of the national interest in these facilities must be based on a balancing of these interests relative to the wise use, protection and other development of the coastal zone." 257

The Federal Department of Energy (FDOE) has indicated that it will participate in the development and implementation of the Oregon Coastal Management Program as it relates to the national interest. Through review and evaluation of the OCMP provisions, including local comprehensive plans, and the provision of technical assistance and information concerning the national interest and the potential impacts of coastal energy activities, FDOE will assist the Department of Land Conservation and Development, without attempting to "supplant coastal zone management policy decisions which are ultimately and solely within the state's jurisdiction." 258 The cooperative effort between the state and federal governments is envisioned in the CZMA. 259 Through this cooperation, conscious and wise protection and use of the coastal zone will be assured.

It is possible that the state of Oregon will find that, in balance, the preservation of its fragile estuaries outweighs the national interest in

having an LNG marine importation facility in this state. The potential risk from such a facility may tip the scales in favor of estuaries. The public trust deserves at least as much consideration, and perhaps more, than an LNG facility that will significantly impact the state.

Section X

RECOMMENDATIONS

--Expand the jurisdiction of the Energy Facility Siting Council (EFSC) to include the siting and operations of LNG facilities.

--Transfer the natural gas facility inspection functions of the Public Utilities Commission to EFSC.

--Adopt an LNG statute which specifies the population densities surrounding any proposed LNG facility to ensure that such facility will be sited in a remote area.

--Consider the policies and details of the pending federal legislation in the drafting of an Oregon LNG siting and regulation statute.

--The agency which maintains authority over LNG should adopt new regulations respecting the siting and operation of LNG facilities based substantially on the proposed Materials Transportation Bureau regulations and which specifically include sufficient thermal and vapor exclusion zones.

--Inventory the potential LNG sites to provide guidance for the development of local comprehensive plans.

--Consider the public trust in the decision as to whether an LNG facility will be sited or expanded in Oregon's coastal zone.

--Consider the potential environmental and secondary impacts accompanying a proposed LNG facility, with special attention focused on the potential hardships in smaller coastal communities.

NOTES

1 Defining the people's energy needs is a process engaged in by numerous agencies, commissions, legislators, corporations, utilities, and various other people both in government and the private sector. Only recently have people begun to understand what their energy needs really are. Previous to this time, energy need was synonymous with energy consumption. The various people engaged in the process to make projections based on an increase in overall consumption commensurate with population increases. The notion of conservation is now considered a viable method of meeting energy needs. This results in a reevaluation of those needs and a significantly different projection.

Although many people believe more energy facilities are needed to meet our needs, it is apparent to some that, with a greater emphasis on conservation, there presently exist a sufficient number of facilities to meet our needs. The general adoption of the conservation ethic will significantly contribute to the preservation of the coastal zone.

2 16 U.S.C. § 1451(e) (1976) (Congressional findings regarding the coastal zone).

3 16 U.S.C. §§ 1451-1464 (1976).

4 Id. § 1452(b).

5 Act of July 26, 1976, Pub.L.No. 94-370, 90 Stat. 1017.

6 16 U.S.C. § 1455(a) (8) (1976).

7 Id. § 1455(c) (8).

8 P. Swan, Legal Aspects of the Ocean Carriage and Receipt of Liquefied Natural Gas 13 (1977).

9 It is possible to construct an offshore LNG marine terminal. Numerous complexities arise with regards to such facilities. Due to the lack of superior designs at this time, there is no major report that recommends the construction of offshore facilities. For a complete discussion regarding LNG facilities, see generally Office of Technology Assessment, Transportation of Liquefied Natural Gas (1977); Staff of the Interagency Task Force on Facilities, Project Independence Blueprint Final Task Force Report, Facilities, chapter VI (1974).

10 Staff of the Federal Power Comm'n., Bureau of Natural Gas, Draft Environmental Impact Statement for the Construction and Operation of an LNG Import Terminal at Oxnard, California 101 (1976) [hereinafter cited as Pac-Indonesia DEIS]. The site descriptions will essentially be similar for all LNG facilities. Therefore, references to environmental impacts will be made to the Pac-Indonesia DEIS where appropriate.

11 Id. at 101.

12 See text accompanying notes 35-37 infra.

- 13 See Pac-Indonesia DEIS supra note 12, at 102.
- 14 Id.
- 15 See id. at 110-17.
- 16 Hildreth, Where Energy Meets the Environment, 13 San Diego L. Rev. 253, 257 (1976) (footnotes omitted).
- 17 S. Rep. No. 92-753, 92d Cong., 2d Sess. (1972), reprinted in [1972] 3 U.S. Code Cong. & Ad. News 4776, 4777.
- 18 Oregon Division of State Lands, Oregon's Estuaries (1972).
- 19 Hildreth, supra note 18, at 261-62 (footnote omitted).
- 20 Pac-Indonesia DEIS supra note 12, at 147-52.
- 21 Id. at 147.
- 22 Id.
- 23 The following discussion is taken from I. Comptroller General, Liquefied Energy Gases Safety, Chapter 10 (July, 1978) [hereinafter cited as GAO Rept.].
- 24 Present day tanks are constructed of 9% nickel alloy steel. Other aspects of the facilities also proved inadequate.
- 25 GAO Rept., supra note 23, at 10-6.
- 26 Id. at 10-8.
- 27 Id.
- 28 Id. at 10-11.
- 29 Id. at 2-9. Presumably these were 1944 dollars.
- 30 Northwest Natural Gas Co., Fact Sheet for Liquefied Natural Gas Plant, Newport, Oregon 2 (July 1, 1977). The tank at Newport has a capacity of 12.6 million gallons of liquid (47,703 cubic meters). Id.
- 31 42 C.F.R. § 192.12 (1977).
- 32 NFPA Standard 59A, § 110 (1975).
- 33 Id. § 200.
- 34 Id.
- 35 Id. § 2110. Where two or more tanks are located in the same impoundment area the impoundment area must be large enough to contain the liquid from all the tanks, id. § 2110(c), unless provision is made for protection of one container from the leakage of another, in which case the area must be large enough to contain the liquid in the largest tank, id. § 2110(b).

- 36 Id. § 2113.
- 37 Id. § 2120.
- 38 GAO Rept. supra note 23. The report covers LNG, Liquefied Petroleum Gas (LPG), and naptha (a less hazardous substance included for comparison). LNG and LPG were considered together as Liquefied Energy Gases because they are similar substances with many safety and security problems in common. Id. at 2-3.
- 39 Id. at 37.
- 40 Id. at 12.
- 41 Id. at 7.
- 42 Id.
- 43 Id. at 3-39.
- 44 Id.
- 45 Id.
- 46 Id.
- 47 Id. at 3-40.
- 48 Id. at 9.
- 49 Id. at 5-26.
- 50 Id. at 9.
- 51 Id. at 5-26.
- 52 Id. at 9.
- 53 Id. at 5-26.
- 54 Id. at 10. Many LNG tanks in Japan, the world's largest importer of LNG, are built in the ground and are operating satisfactorily. The cost is comparable for above-ground tanks and like installations. Id.
- 55 Id. at 12.
- 56 Id.
- 57 Id.
- 58 Id. at 13. Currently intrastate gas facilities are exempt from federal jurisdiction under certain conditions. See text accompanying note 70 infra.

- 59 42 Fed.Reg. 20,776 (1977).
- 60 Id.
- 61 49 U.S.C. §§ 1671-1684 (Supp. V 1975).
- 62 42 Fed. Reg. 20,776 (1977).
- 63 Id.
- 64 Id.
- 65 Id.
- 66 15 U.S.C. §§ 717-717w (1976).
- 67 The original act designated the Federal Power Commission as the agency in charge of matters relating to natural gas. 15 U.S.C. § 717a(9) (1976). Pursuant to the terms of the Department of Energy Reorganization Act § 402, 42 U.S.C.A. § 7172(a)(1)(D) (West Supp. 1977), and Exec. Order No. 12,009, 42 Fed. Reg. 46267, reprinted in [1977] 3 U.S. Code Cong. & Ad. News 4686, the Federal Power Commission functions under section 7 of the Natural Gas Act were transferred to the newly created Federal Energy Regulatory Commission in the United States Department of Energy.
- 68 15 U.S.C. § 717(b) (1976).
- 69 *Distrigas Corp. v. FPC*, 517 F.2d 761, 764 (1st Cir. 1975).
- 70 15 U.S.C. § 717(c) (1976).
- 71 ORS 469.470 (1977).
- 72 ORS 469.310 (1977).
- 73 ORS 469.300(10) (e)(1977).
- 74 Id. (10); ORS 469.320 (1977).
- 75 ORS 469.320 (1977).
- 76 OAR 345-75-010 to 025.
- 77 ORS 469.450 (1977).
- 78 ORS 469.330(2) (1977).
- 79 ORS 469.370 (1977).
- 80 ORS 476.030(a) (1977).
- 81 Id. (b).

- 82 ORS 476.120 (1977).
- 83 See text accompanying notes 32-37 supra.
- 84 Id.
- 85 ORS 476.030(4) (1977).
- 86 ORS 757.039 (1977).
- 87 Id.
- 88 Id.
- 89 42 C.F.R. § 192.12 (1977).
- 90 See Section III GAO Report
- 91 See Section III Standard Changes
- 92 Under ORS 476.120, the SFM must consider the NFPA standards but is not bound by them. The authority clearly exists under ORS 476.030 to promulgate more complete regulations regarding the siting and other aspects of LNG facilities. The PUC also has authority to promulgate regulations under ORS 757.039 (1977).
- 93 ORS 469.430 (1977).
- 94 Cal. Pub. Util. Code §§ 5550-5650 (1978).
- 95 See Legislative Counsel's Digest, SB 1081 (1977).
- 96 Cal. Pub. Util. Code §§ 5551(d), 5580 (1978).
- 97 Id. § 5552. Until the safety of LNG is assured, only one LNG facility will be built in California.
- 98 Id. § 5611.
- 99 Id. § 5612.
- 100 Id.
- 101 Id. § 5631(b).
- 102 Id. § 5560.
- 103 Id. § 5632.
- 104 Id.
- 105 Id. § 5582(a).

- 106 Id. § 5590(a).
- 107 Id. § 5590(b).
- 108 Id. § 5590(c).
- 109 Id. § 5586.
- 110 Id. § 5551(d).
- 111 Id. § 5552.
- 112 Staff of the Federal Energy Regulatory Commission, Memorandum of the Comm'n. Staff on the Constitutional Questions Presented by the California Liquefied Natural Gas Terminal Act of 1977 (May, 1978) [hereinafter cited as FERC Memo].
- 113 Id. at 8.
- 114 49 U.S.C. §§ 1671-1684 (Supp. V 1975).
- 115 15 U.S.C. §§ 717-717w (1976).
- 116 46 U.S.C. § 391a (Supp. V 1975).
- 117 Id. § 170.
- 118 33 U.S.C. §§ 1221-1227 (1976).
- 119 Cal. Pub. Util. Code § 5552 (1978).
- 120 See Izaak Walton League v. St. Clair, 353 F.Supp. 698, 707 (D.Minn. 1973), rev'd on other grounds, 497 F.2d 849 (8th Cir.), cert. denied, 419 U.S. 1009 (1974); U.S. Const. amend. X.
- 121 49 U.S.C. §§ 1671-1684 (Supp. V 1975).
- 122 Id. § 1672(b).
- 123 Id. § 1671(4).
- 124 Id. § 1672(b).
- 125 Id. § 1671(4).
- 126 H.R. Rep. No. 1390, 90th Cong., 2d Sess., reprinted in [1968] 3 U.S. Code Cong. & Ad. News 3223.
- 127 Id. at 3223.
- 128 Id. at 3224.

129 Id. at 3251.
130 15 U.S.C. §§ 717-717w (1976).
131 U.S. Const. art. 1, § 8, cl. 3.
132 15 U.S.C. § 717(b) (1976).
133 Id. § 717(a).
134 Id. § 717(b).
135 Id.
136 Id.
137 Id. § 717f(c).
138 Id. § 717f(e).
139 42 U.S.C.A. §§ 7171-7177 (West Supp. 1977).
140 15 U.S.C. § 717f(h) (1976).
141 Id. § 717f(e).
142 Id.
143 495 F.2d 1057 (D.C.Cir. 1974).
144 Id. at 1064.
145 Id.
146 Id.
147 Id. (footnotes omitted).
148 180 F.2d 644 (5th Cir.), cert. denied, 340 U.S. 829 (1950).
149 Id. at 647.
150 46 U.S.C. § 391a (Supp. V 1975).
151 Id. § 170.
152 33 U.S.C. §§ 1221-1227 (1976).
153 362 U.S. 440 (1960).
154 Id. at 443, citing Savage v. Jones, 225 U.S. 501, 533 (1912).
155 489 F.2d 334 (4th Cir. 1973), cert. denied, 417 U.S. 946 (1974).

- 156 Id. at 337, citing Florida Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142 (1963).
- 157 489 F.2d at 337. See Hines v. Davidowitz, 312 U.S. 52 (1941).
- 158 Florida Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142 (1963).
- 159 362 U.S. 440 (1960).
- 160 Id. at 443-44 (citations omitted).
- 161 The earlier three bills are H.R. 11365, H.R. 6844, and S. 2273. This is not to imply that none of these three bills will pass.
- 162 33 U.S.C. §§ 1221-1227 (1976).
- 163 The Act addresses all liquefied gases. Reference in this discussion will be limited to ING.
- 164 § 301(b).
- 165 § 303.
- 166 § 303(b) (2).
- 167 § 307(c).
- 168 § 401(b), (c).
- 169 § 402(a).
- 170 § 402(a) (1).
- 171 Id.
- 172 § 402(a) (2).
- 173 § 402(b).
- 174 § 401(a).
- 175 § 401(c).
- 176 Id.
- 177 § 401(e).
- 178 § 406(a).
- 179 § 406(b).
- 180 49 U.S.C. §§ 1671-1684 (Supp. V 1975).

- 181 § 6(d) (1) (C).
- 182 § 6(j).
- 183 § 6(h).
- 184 § 202(c) (1). The levy is on gas received, because a facility will consume a portion of the stored LNG in its operations, and because there is a small amount of LNG that is boiled off in the storage and transportation.
- 185 § 204(a) (1) (A).
- 186 § 204(a) (1) (B).
- 187 § 204(a) (2).
- 188 § 206.
- 189 Subtitle B.
- 190 § 304.
- 191 The following discussion is based on information contained in Marathon Oil Co., Docket No. CI74-537 and Phillips Petroleum Co., Docket No. CI74-538, consolidated in, Opinion No. 735, Fed. Power Comm'n. 1-6 (June 23, 1975) (hereinafter cited as FPC Opinion).
- 192 15 U.S.C. § 717f (1976).
- 193 Intervenors included: Northwest Natural Gas Co., Atlantic Richfield Co., El Paso Natural Gas Co., State of Alaska, San Diego Gas & Electric Co., Shell Oil Co., Public Utility Commissioner of Oregon, Distrigas Corp., Public Service Commission of New York, Exxon Corp., Cascade Natural Gas Corp., Southern California Gas Co., Pacific Alaska LNG Co., State of California, and the Public Utilities Commission of California. The issues presented at the hearing affected all intra-state facilities planning to receive imported LNG.
- 194 The question of whether a wellhead price for the gas should be set was also raised at the Phase I hearing. The question was answered in the negative since there was no wellhead sale contemplated. The question would have arisen in the Phase II hearing regarding the fairness of the price of gas in the contract.
- 195 15 U.S.C. § 717(c) (1976).
- 196 379 U.S. 366 (1965).
- 197 15 U.S.C. § 717(b) (1976).
- 198 FPC Opinion at 9.
- 199 Id. at 12.

- 200 Id. at 12-13.
- 201 Id. at 19(3).
- 202 Id. at 7, 6. See 15 U.S.C. § 717(b) (1976).
- 203 FPC Opinion at 7.
- 204 Id.
- 205 Id.
- 206 Id. at 13.
- 207 Id. at 14. See 15 U.S.C. § 717a(7) (1976).
- 208 FPC Opinion at 14.
- 209 Id. at 17.
- 210 Id. at 18.
- 211 Id. at 19.
- 212 Marathon Oil Co., Docket No. CI 74-537 and Phillips Petroleum Co., Docket No. CI 74-538, consolidated in Opinion & Order Denying Rehearing of Opinion No. 735, Fed. Power Comm'n. Opinion No. 735-A (Aug. 19, 1975).
- 213 Marathon Oil Co., Docket No. CI 74-537 and Phillips Petroleum Co., Docket No. CI 74-538, consolidated in Order Permitting Withdrawals and Terminating Proceedings, Fed. Power Comm'n. (Jan. 30, 1976).
- 214 Oregonian, July 12, 1977 at 1.
- 215 Id.
- 216 Id.
- 217 Letter from Paul Brookhyser, Zoning Administrator, Lincoln County Planning Commission, Natural Gas Co., Dec. 14, 1973.
- 218 No. 77-525 (D. Ore. Aug. 2, 1977).
- 219 Two permits were issued by the Corps: one for the dredging operation which was the subject of this action, and one for a dock and wharf facility which expired by its own terms due to the scuttling of the importation plan after the FPC ruling. The second permit is not at issue here. Id. at 6-7.
- 220 Id. at 12. See 42 U.S. § 4332(1)(c) (Supp. V 1975).

- 221 No. 77-525 at 13. It should be noted that the facility was constructed on the dredge spoils, without which the site would presumably be unsuitable.
- 222 33 U.S.C. §§ 540-633 (1976).
- 223 Id. §§ 1251-1376 (1976).
- 224 No. 77-525 at 15-16.
- 225 The facility at this stage was an intrastate peakshaving facility, exempt from federal jurisdiction under the Hinshaw Amendment.
- 226 No. 77-525 at 16-17.
- 227 Id. at 17.
- 228 Id. at 21.
- 229 16 U.S.C. §§ 1451-1464 (1976).
- 230 Id. § 1451(h).
- 231 Id. § 1456(a).
- 232 Id. § 1456(c) (2).
- 233 Id. § 1456(c) (1).
- 234 Id. § 1456(c) (3) (A).
- 235 Id.
- 236 ORS 541.615 (1977).
- 237 ORS 541.625(3) (1977).
- 238 Id.
- 239 ORS 777.110 (1977).
- 240 ORS 777.258 (1977).
- 241 ORS 197.175 (1977).
- 242 31 Or.App 1309, 572 P.2d 1075 (1977).
- 243 Id. at 1312, 572 P.2d at 1078.
- 244 Morse v. Oregon Division of State Lands, 34 Or.App 853, 581 P.2d 520 (1978).
- 245 Id. at 859, 581 P.2d at 523-24.

- 246 Id. at 860, 581 P.2d at 524.
- 247 16 U.S.C. § 1455(c) (8) (1976).
- 248 This is distinguished from a peakshaving facility which does not require access to the ocean.
- 249 See Section II Environmental Impacts
- 250 CV 77-3375-RJK (C.D. Cal. filed Aug. 31, 1978).
- 251 Id. at 68.
- 252 Id. at 64.
- 253 Id. at 69.
- 254 15 C.F.R. § 923.15(b) (1977).
- 255 16 U.S.C. § 1454(b) (8) (1976).
- 256 CV 77-3375-RJK at 74 (emphasis added).
- 257 43 Fed. Reg. 8379 (1978).
- 258 Letter from Jack B. Robertson, Federal Department of Energy, to W.J. Kvarsten, DLCD (Oct. 20, 1978).
- 259 16 U.S.C. § 1452(h) (1976).

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