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December 16, 1986

The Honorable Stephen I. Danzansky
Special Assistant to the President
and Senior Director for
International Economic Affairs
The White House
OEOB, Room 365
Washington, D.C. 20500

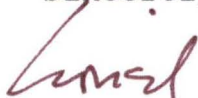
Dear Steve:

As you well know, it is that time of year for consideration of foreign policy export controls which automatically lapse unless specifically renewed by the Administration.

The control on export of non-strategic oil and gas equipment and technology has had a crushing impact on the U.S. petroleum equipment and services industry, causing the loss of billions of dollars in lost sales and as many as 46,000 American jobs while not impeding Soviet acquisition of what they need -- from our allies in the West or from an indigenous capability accelerated by this foreign policy control.

The attached brief was submitted yesterday to the Commerce Department in anticipation of the interagency review of this issue required by the Export Administration Act. I urge that you review at least the Executive Summary of this brief and weigh in strongly on the side of allowing the control to lapse. I hope you are as persuaded as I am that it is a matter of overpowering national interest for the Administration to allow the termination of this foreign policy control.

Sincerely,



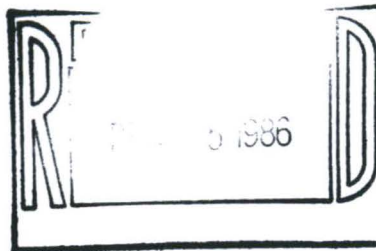
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Enclosure

**Petroleum
Equipment
Suppliers
Association**

J. Stephen Larkin
Executive Vice President

9225 Katy Freeway Suite 401
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December 12, 1986

Ms. Joan Maguire
Regulations Branch
Office of Technology and Policy Analysis
U.S. Department of Commerce, Room 1622
P.O. Box 273
Washington, D.C. 20044

Re: Requests for Comments on Foreign Policy
Export Controls (Docket No. 60984-6184)


Dear Ms. Maguire:

On behalf of the Petroleum Equipment Suppliers Association ("PESA"), I am submitting comments on the impact of foreign policy export controls on the domestic petroleum equipment and services industry, in response to the Commerce Department's request for comments which appeared in the October 15, 1986 issue of Federal Register. Our comments focus on the foreign policy control covering exports to the Soviet Union of oil and gas equipment and technology, which has cost the U.S. industry hundreds of millions (and quite possibly billions) of dollars.

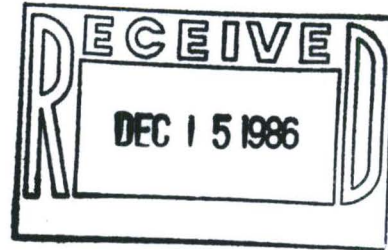
PESA is a trade association of 218 U.S. manufacturers and suppliers of petroleum equipment and services, many of them small entrepreneurial companies with less than 200 employees. PESA members account for approximately 90 percent of annual sales within the industry, which is expected to have about \$8.7 billion in total sales and \$2.5 billion in exports in 1986. The industry has approximately 246,000 employees in 46 states.

As explained in the attached comments, PESA believes that the oil and gas export control against the Soviet Union, though well-intentioned, no longer serves a valid foreign policy purpose. Even assuming that the control continues to serve some foreign policy purpose, any benefits are outweighed by its substantial cost to U.S. business and employment. Our industry continues to be the only one called upon to bear the burden of this type of foreign policy "signaling" toward the Soviet Union -- in sharp contrast to President Reagan's admirable decision to drop the self-destructive grain embargo against that country. Given the dire condition of our industry, and the consequences this condition may have for long-term U.S. energy and trade interests, now is the time to remove this serious impediment to U.S. exports.

Sincerely,


J. Stephen Larkin
Executive Vice President

JSL;sc



THE
U.S. FOREIGN POLICY CONTROL ON EXPORTS OF
OIL AND GAS EQUIPMENT AND TECHNOLOGY
TO THE SOVIET UNION
(15 C.F.R. § 385.2(c))

Comments By The
Petroleum Equipment Suppliers Association
9225 Katy Freeway, Suite 401
Houston, Texas 77024

December 15, 1986

Prepared by:

Paul, Weiss, Rifkind,
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1615 L Street, N.W.
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TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	i
I. STATEMENT OF INTEREST	1
II. STATUTORY REQUIREMENTS FOR EXTENDING FOREIGN POLICY CONTROLS	4
III. HISTORY OF THE EXPORT CONTROL ON OIL AND GAS EQUIPMENT AND TECHNOLOGY	6
IV. EFFECTIVENESS OF THE EXPORT CONTROL ON OIL AND GAS EQUIPMENT AND TECHNOLOGY	11
A. Introduction	11
B. "Signaling" U.S. Displeasure with Soviet Policies	13
C. Influencing Soviet Behavior	15
D. Impeding Soviet Energy Development/ Shifting the Energy Policy of U.S. Allies	17
V. COST OF THE OIL AND GAS CONTROL TO U.S. BUSINESS AND EMPLOYMENT	20
A. Introduction	20
B. Loss of the U.S. Share in the Soviet Market	22
C. Damage to the International Position of the U.S. Petroleum Equipment and Services Industry	32
D. Specific Examples of Losses to U.S. Business and Employment	34
VI. THE STATE OF THE U.S. PETROLEUM EQUIPMENT AND SERVICES INDUSTRY	39
VII. THE POTENTIAL FOR U.S.-SOVIET TRADE IN OIL AND GAS EQUIPMENT AND TECHNOLOGY	42
VIII. CONCLUSION	45
FOOTNOTES	50

EXECUTIVE SUMMARY

The Administration has issued a number of pronouncements this year stating its commitment to improving U.S. trade performance, and has issued other pronouncements asserting that it continues to seek improved trade ties between the United States and the Soviet Union in non-strategic items. If the Administration is serious about reducing the enormous U.S. trade deficit and encouraging peaceful, non-strategic trade between the United States and the Soviet Union, then it should reexamine existing obstacles in one of the most promising areas for U.S. sales abroad -- namely, the export of oil and gas equipment and technology to the Soviet Union. Such a reexamination is critical at a time when the U.S. petroleum equipment and services industry faces its most dire economic conditions in many years -- and, indeed, at a time when there is good cause to question how much of the industry will survive to see the next economic upturn.

A key obstacle to increasing non-strategic trade with the Soviet Union is the U.S. foreign policy control on exports to that country of oil and gas equipment and technology, which has cost the U.S. petroleum equipment and services industry hundreds of millions (and quite possibly billions) of dollars, and thousands of U.S. jobs. The licensing policy under this foreign policy control was

changed at the end of the last annual review period (i.e., January, 1986), but the change was so marginal that it has produced few benefits for the industry. The new "case-by-case" review policy for non-manufacturing exploration and production technology does not provide U.S. sellers or Soviet purchasers with a clear signal as to licensing prospects. More fundamental, the very existence of this foreign policy control -- regardless of stated licensing policy -- poses uncertainties and delays that the Soviets need not face in purchasing from petroleum equipment and technology suppliers in other countries.

Hence, the reasons for dropping the oil and gas control that were listed in last year's comments by the Petroleum Equipment Suppliers Association remain every bit as valid today:

(1) continuance of the control would require disregard for the criteria contained in the Export Administration Amendments Act of 1985 ("1985 Act");

(2) the control no longer serves U.S. foreign policy interests because:

-- it has already used up whatever power it may once have had to "signal" U.S. displeasure with the Shcharansky and

Ginsberg trials, the invasion of Afghanistan, and the imposition of martial law in Poland;

-- it is inadequate to the job of effecting change in Soviet human rights or foreign policies;

-- it does not significantly impede Soviet energy development efforts, in light of indigenous Soviet capacity and the wide-ranging foreign availability of comparable oil and gas equipment and technology (indeed, the control has served to accelerate the development of Soviet indigenous capacity); and

(3) even assuming that the control continues to serve some foreign policy purpose, any benefits it provides are outweighed by its costs to U.S. business and employment:

-- in terms of the direct losses associated with ceding to foreign competitors the U.S. share of the Soviet market for petroleum equipment and services;

-- in terms of the pressure it places on U.S. manufacturers to move their production and R&D activities abroad;

- in terms of the tremendous damage it does to the international reputation for reliability of U.S. suppliers of petroleum equipment and services;
- in terms of the spill-over effect that exclusion from the major economic and technological benefits of participating in the Soviet market has on the competitive position of the U.S. industry in other markets around the world; and
- in terms of the indirect effect that these costs to the industry have on its own suppliers and the U.S. economy at large.

In sum, the oil and gas control has outlived whatever usefulness it may once have had, and it should no longer be allowed to impose its direct and indirect costs on the U.S. economy. This policy change would not affect those national security controls that cover certain sophisticated types of oil and gas equipment and technology; but the vast range of non-sensitive oil and gas equipment would be freed from licensing burdens, and oil and gas equipment and technology in general would be freed from the licensing uncertainties and political baggage associated with the current foreign policy control.

It is only through termination of the oil and gas control that the U.S. industry will have a reasonable chance of reasserting itself in the huge Soviet market -- to the long-run benefit of the U.S. economy and, perhaps, to broader U.S.-Soviet relations as well. Absent access to the Soviet market, still more business and jobs will be lost to foreign competitors, and additional shrinkage is to be expected in a key U.S. industry where bankruptcy, mergers, and asset sales have become commonplace -- at substantial risk to the country's trade, energy and national security interests.

It is fundamentally unfair to continue singling out the U.S. equipment and services industry to bear the burden of expressing U.S. displeasure regarding Soviet human rights and foreign policies -- especially when there are numerous less costly alternatives available. The long-term maintenance of the oil and gas control provides a regrettable contrast to President Reagan's handling of the grain embargo, which he dropped because of its foreign policy ineffectiveness and the hardships it imposed on the U.S. agricultural community. Maintenance of the oil and gas control also provides a sharp contrast to recent Administration decisions to offer the Soviets subsidized grain, to remove restrictions on bilateral air service, and to seek Congressional removal of the ban on imports of Soviet fur skins.

There are undoubtedly political risks associated with removing the oil and gas control, and there are some who will second-guess any such decision. It will take political courage and wisdom to drop the control, and to provide a forceful and cogent explanation of the benefits of doing so and the alternative means of pursuing the important U.S. objectives vis-a-vis Soviet human rights and foreign policies. There will never be an "ideal" time to drop the oil and gas control. But if the mandatory annual balancing of foreign policy benefits and economic costs under the 1985 Act has any meaning at all, now is the time to break free of the policy morass which surrounds this issue.

I. STATEMENT OF INTEREST

The Petroleum Equipment Suppliers Association ("PESA") is a trade association representing U.S. manufacturers and suppliers of oil and gas equipment and services. It currently has 218 member firms, many of them small entrepreneurial companies with less than 200 employees. The U.S. petroleum equipment and services industry has around 246,000 employees in 46 states -- down from 377,400 a year ago, and 611,300 at its peak in late 1981. The industry will account for about \$2.5 billion in exports in 1986 -- down from \$3.2 billion in 1985, and \$5.3 billion in its peak export year (1982). PESA members account for approximately 90 percent of annual sales within the industry.

With about 35 percent of annual sales attributable to exports, our industry is highly export-dependent -- and, as a consequence, highly sensitive to the vagaries of shifting U.S. foreign policy controls. Although the business and employment costs of foreign policy controls are sometimes difficult to quantify with precision, our industry has suffered substantial losses in jobs for American workers and in revenues over the last nine years from the use of foreign policy restrictions on exports of oil and gas equipment and technology.

The short-term costs of these foreign policy restrictions are perhaps best illustrated by the following Commerce Department statistics: in the period 1975-1978, U.S. exports of oil and gas equipment and technology accounted for about 25 percent of total Western exports of such equipment and technology to the Soviet Union; in the five years after imposition of the oil and gas control (1979-1984), the U.S. share was less than 2 percent. Had U.S. market share remained constant, U.S. suppliers would have received about \$2 billion in orders during the 1979-1985 period, instead of the \$170 million they actually received.^{1/} Based on the commonly used Commerce Department formula equating every \$1 billion in exports with roughly 25,000 domestic jobs, this lost business amounts to almost 46,000 U.S. jobs.^{2/}

In the last year, the U.S. presence in the Soviet market has improved in some areas (notably pipelaying equipment), but remains negligible for most of the exploration and production equipment and technology that remain subject to the oil and gas control. Although some of the dramatic loss in U.S. market share is attributable to the increasing international competitiveness of foreign suppliers of oil and gas equipment, it is undeniable that much of this loss in market share is attributable to either the direct restrictions imposed by the oil and gas control, or to the damage

this control has caused to the reputation for reliability of the U.S. petroleum equipment and services industry.

It is PESA's position that the control embodied in 15 C.F.R. § 385.2(c) cannot be justified by any countervailing foreign policy benefits:

- o The control has had no discernible impact on Soviet human rights policy, or on Soviet policy toward Poland or Afghanistan. Rather, the Soviets have demonstrated their unwillingness to let U.S. foreign policy controls bend Soviet policy in a direction preferred by the U.S.
- o The control has had little measurable impact upon the development of Soviet energy resources, or upon Soviet ability to generate hard currency or to affect West European energy dependence. The consistent unwillingness of foreign governments -- including our closest allies -- to adopt similar controls has simply resulted in a shift away from U.S. suppliers.
- o The control has not merely failed to alter Soviet behavior and to impede the development of Soviet energy resources; rather, it has also had the

ironic effect of accelerating Soviet indigenous capacity to manufacture oil and gas equipment.

It is the position of PESA, therefore, that the criteria for extending foreign policy controls under the Export Administration Amendments Act of 1985 ("1985 Act")^{3/} cannot be met, and that, as a consequence, the oil and gas control should not be renewed.

II. STATUTORY REQUIREMENTS FOR EXTENDING FOREIGN POLICY CONTROLS

The 1985 Act's revisions to Section 6 of the Export Administration Act ("EAA")^{4/} did not affect the requirement that all foreign policy controls must be extended annually by an affirmative Executive Branch decision (absent such an extension, the current controls will lapse automatically on January 21, 1987). However, the 1985 Act did impose more rigorous requirements on the process for extending foreign policy controls under the EAA. Although these requirements are not as demanding for controls that were already in place on the date the 1985 Act went into effect as they are for new controls, Section 6 of the EAA, as amended, nonetheless requires that each of the following criteria be carefully considered before any foreign policy control that predates the 1985 Act is renewed:

(1) whether the control is likely to achieve its intended foreign policy purpose in light of other factors, including the availability from other countries of the good or technology subject to the control, and whether the foreign policy purpose can be achieved through negotiations or other alternative means;

(2) whether the control is compatible with U.S. foreign policy objectives and with overall U.S. policy toward the country that is the target of the control;

(3) whether the reaction of other countries to the extension of the control is likely to render the control ineffective in achieving the intended foreign policy purpose, or to be counterproductive to U.S. foreign policy interests;

(4) whether the effect of the control on the United States, its competitive position in the international economy, its international reputation as a reliable supplier of goods and technology, or the economic well-being of individual U.S. communities exceeds the benefit to U.S. foreign policy objectives;

(5) whether the United States has the ability to enforce the control effectively; and

(6) what the foreign policy consequences would be of modifying the control.

It is true that the 1984 House-Senate conference process resulted in a watering-down of the original Senate

language with respect to the extension of already-existing foreign policy controls under the 1985 Act. However, there is no indication in the legislative history that the conferees disagreed with the strong Senate emphasis on the need for serious evaluation of the costs of imposing or extending foreign policy controls -- which was prompted largely by the pro forma analyses that had appeared in previous annual Commerce Department reports to Congress, and frequent Commerce Department assertions that, "[h]aving considered these criteria, the Secretary is not strictly bound by them."^{5/} Particular emphasis is placed throughout the legislative history on the need for the Executive Branch to devote greater attention to the existence and consequences of foreign availability in imposing or extending foreign policy controls.^{6/}

III. HISTORY OF THE EXPORT CONTROL ON OIL AND GAS EQUIPMENT AND TECHNOLOGY

The original foreign policy control on exports of oil and gas equipment to the Soviet Union was imposed by the Carter Administration in August, 1978, in response to the Shcharansky and Ginsberg trials (along with the arrest of American businessman Jay Crawford and the harassment of American journalists). The control covered exports of:

- (1) oil and gas exploration and production equipment;

(2) certain transmission-related equipment (pipelaying, pipe-coating, and pipewrapping equipment); (3) drilling fluids, muds, and other materials utilized for enhanced oil and gas recovery; (4) machinery or equipment specially designed or modified for the manufacture of oil or gas exploration or production equipment; and (5) technology related to any of the above items.

The Commerce Department regulatory statement issued at the time provided no indication of: (1) the foreign policy objectives to be achieved by the control; (2) the costs to U.S. business interests expected from the control, or how those costs compared to the foreign policy objectives; or (3) the licensing policy applicable to the newly-controlled equipment and technology.^{7/} In practice, the licensing policy was a presumption of approval (except for equipment that was also controlled for national security reasons, and technology related thereto).

In January, 1980, the oil and gas control was expanded to include the export of any other commodities that required a validated license and were intended for use in oil or gas exploration or production.^{8/} Also in early 1980, after temporarily suspending all outstanding licenses and the processing of license applications for export to the Soviet Union in response to the Soviet invasion of Afghanistan,^{9/}

the Carter Administration changed the de facto licensing policy for oil and gas technology to a presumption of denial.

At the end of 1981, following the imposition of martial law in Poland, the oil and gas control was expanded substantially, to cover oil and gas transmission and refining equipment and technology, and any other commodities that required a validated license and were intended for use in oil or gas transmission or refining.^{10/} Since the processing of all license applications was also suspended in response to developments in Poland,^{11/} the licensing policy was effectively one of across-the-board denial for all oil and gas equipment and technology (these measures led to the beginning of the so-called "pipeline dispute" between the United States and its allies). In June, 1982, the oil and gas control was again expanded dramatically, with the addition to the control of: (1) exports from abroad of foreign oil and gas equipment and technology by U.S.-owned or U.S.-controlled companies; and (2) exports from abroad of certain foreign products based upon U.S. oil and gas technology (regardless of when that technology was transferred abroad).^{12/}

In November, 1982, the steps taken in December, 1981 and June, 1982 were reversed: the suspension order was lifted; refining and transmission equipment (except for pipe-laying, pipecoating, and pipewrapping equipment) was removed from the control; and the extension of the control to foreign

subsidiaries and foreign products of previously exported U.S. technology was dropped. The oil and gas control was returned to its form prior to December, 1981, although the applicable licensing policy was explicitly stated in the regulation for the first time: (1) general approval of export license applications for exploration and production equipment (except for COCOM-controlled items and equipment for the manufacture of oil or gas exploration or production equipment); and (2) general denial of export license applications for oil or gas exploration or production technology.^{13/}

In September, 1983, the Commerce Department dropped pipelaying tractors from the oil and gas control. The regulatory statement issued at the time provided two reasons for this step: (1) pipelaying tractors are related to the transmission, rather than the exploration or production, of oil and gas; and (2) pipelaying tractors "do not involve high technology and are available from a number of other countries."^{14/} With respect to this second reason, no explanation was provided as to how pipelaying tractors differ from most of the other equipment currently covered by the oil and gas control -- which is also readily available from a multitude of foreign sources, and is not usually viewed as "high-tech" by those familiar with the equipment, whether inside or outside the industry.

Finally, in January, 1986, the Commerce Department quietly released a change in licensing policy for exports of non-manufacturing oil and gas exploration and production technology, from one of general denial to one of "case-by-case" review^{15/} (although this licensing change was not reflected in the Export Administration Regulations until May, 1986^{16/}). No explanation was provided as to the rationale behind this marginal change in announced licensing policy, or as to the practical meaning of "case-by-case" review.

Thus, the following categories of equipment and technology currently fall under the oil and gas control:

- (1) oil and gas exploration and production equipment (general approval, except where COCOM-controlled);
- (2) certain transmission-related equipment (pipelaying, pipecoating, and pipe-wrapping equipment, except for pipelaying tractors) (general approval, except where COCOM-controlled);
- (3) chemicals and materials specially formulated or modified for use in oil and gas production (general approval, except where COCOM-controlled);
- (4) equipment and technology for the manufacture of oil or gas exploration or production equipment (general denial);
- (5) non-manufacturing oil and gas exploration and production technology ("case-by-case" review); and
- (6) other commodities requiring a validated license that are intended for use in oil or gas exploration or production (apparently assessed under other applicable licensing policy).^{17/} Few of

the items subject to the control are actually COCOM-controlled, and those few items are restricted because their technological sophistication makes them useful for defense-related functions outside the oil and gas industry (rather than for any use they might have within the industry).

IV. EFFECTIVENESS OF THE EXPORT CONTROL ON OIL AND GAS EQUIPMENT AND TECHNOLOGY

A. Introduction

There appear to be three main foreign policy interests that have at one time or another been associated with the oil and gas control: (1) expressing U.S. displeasure at Soviet internal human rights abuses (the original rationale, following the 1978 trials of Shcharansky and Ginsberg); (2) expressing U.S. displeasure at the Soviet invasion of Afghanistan and the imposition of martial law in Poland (which led each time to a tightening of the oil and gas control, and a subsequent relaxation); and (3) impeding Soviet energy development and/or convincing U.S. allies of the need to be vigilant regarding possible over-dependence on Soviet energy sources (a rationale that has been advanced from time to time by some Administration officials on national security as well as foreign policy grounds). In reality, there is a fourth policy interest that has played a critical role in maintaining the oil and gas control: the perceived

dangers of removing the control without getting something concrete in return (the "unilateral concession" problem, which has both a domestic and international dimension to it).

PESA does not challenge the legitimacy of these concerns. But the question to be addressed in deciding whether or not to renew the oil and gas control is not whether the U.S. is justified in responding to or disassociating itself from certain Soviet policies. Rather, the question here is whether or not the oil and gas control is achieving or is likely to achieve these foreign policy objectives -- and, even if it is, (1) whether any benefits associated with the control are outweighed by its costs to the U.S. economy in general and to the petroleum equipment and services industry in particular; and (2) whether there are more appropriate and less costly means of expressing U.S. displeasure regarding Soviet human rights and foreign policies.

The private sector is at an inherent disadvantage in trying to debate the issue of what does and does not serve U.S. foreign policy interests. The Executive Branch is constitutionally charged with determining U.S. foreign policy interests, and can veil its decision-making process in secrecy and cloak its foreign policy pronouncements in conclusory assertions (e.g., the January, 1986 Department of Commerce report to Congress asserts that "[m]odifications of [the oil and gas control] have served as a useful foreign

policy tool," and that further "[m]odifications of these controls at this time would not be appropriate."^{18/}

Nonetheless, PESA believes that, in line with Congressional intent in passing the 1985 Act, the Commerce and State Departments should openly, thoroughly, and convincingly reassess the foreign policy benefits allegedly to be derived from renewing the oil and gas control. Based on a huge body of material available in the public record and the painful experience of lost U.S. sales, it is PESA's belief that such a reassessment would yield a very convincing case against extending the control.

B. "Signaling" U.S. Displeasure with Soviet Policies

To the extent the control has been designed to serve a "signaling" function,^{19/} that function has already been served. The Soviet Union is hardly unaware of strong U.S. opposition to certain Soviet policies, or of U.S. willingness to make economic sacrifices in order to demonstrate that opposition. Even if we assume that the oil and gas control has been a wise way in which to "signal" the Soviets, the strength of that "signal" has dissipated to the point where it is without effect on the Soviet Union. Indeed, the "signal" has been perverted over the course of time, because the control no longer causes the Soviet Union to "pay a price" for behavior of which the U.S. Government disapproves.

Rather, with the development of an indigenous capacity for the production of oil and gas equipment, and with the rise of foreign suppliers who seek to fill the vacuum left by the exclusion of U.S. manufacturers, it is only the U.S. industry that "pays a price" as a result of the control.

There is, of course, a "reverse signaling" problem commonly associated with foreign policy export controls -- i.e., the problem of perceived "signals" that might be associated with the removal of a control (the concern about "unilateral concessions," etc.). As the General Accounting Office noted in a recent report to Congress,

controls imposed for symbolic purposes take on dimensions beyond their original purposes when their renewal is considered. Once in place, . . . possible removal is viewed as signaling a lessening of U.S. resolve or commitment. From our discussions with Commerce and State Department officials, it seems that even if the control is symbolic and believed unlikely to affect the objectionable behavior which precipitated it, there is reluctance to remove that control without some quid pro quo. ²⁰

Needless to say, overreaction to this concern can produce policy-making paralysis. It is PESA's belief that there is in fact substantial capacity to fine-tune foreign policy "signals" where the will to do so is present -- and that, given the economic costs associated with the oil and gas control, now is the time to exercise the statesmanship necessary to break out of the bureaucratic paralysis surrounding this control. As the recent GAO report noted at

length, there are numerous less costly diplomatic and economic means of "signaling" U.S. displeasure with other countries' policies and practices.^{21/}

C. Influencing Soviet Behavior

To the extent the oil and gas control is intended to influence Soviet human rights or foreign policies, it is woefully inadequate to the task. The Soviets have gone out of their way since 1978 to demonstrate time and again that they will not permit spasmodic U.S. exercises in the use of economic sanctions to influence their decision-making. This key tenet of Soviet policy has been reiterated on a number of occasions by General Secretary Gorbachev.^{22/}

For the oil and gas control, the problem for exercising influence is twofold. First, the control imposes very few costs on the Soviet Union, both because of Soviet indigenous capacity and because of the unwillingness of our allies to impose similar controls. Second, to the extent the control does impose any costs on the Soviet Union, those costs are readily borne by a centralized and autarkic society whose people are required to accept periodic demands for economic sacrifice. Thus, even if foreign policy controls could in theory be used to bring about changes in Soviet policies, the U.S. lacks leverage to press for such changes in the case of the oil and gas control.

Of course, some would argue that, although no fundamental changes are likely, the oil and gas control could still be used to affect Soviet decision-making at the margins -- for example, by bringing about the release of one or two prominent Soviet dissidents. This is an admirable goal, but it is doubtful that the oil and gas control is an effective means of achieving it. First, it is questionable whether demanding Soviet concessions in exchange for removing the oil and gas control will yield greater results than unilateral efforts by the United States to improve peaceful, non-strategic trade between the two countries. Second, tying removal of the oil and gas control to Soviet human rights concessions -- as opposed to terminating the control because it is ineffective -- is bound to produce objections within the United States that any such concessions do not represent sufficiently meaningful changes in Soviet policies.

Finally, it is fundamentally unfair to single out the U.S. petroleum equipment and services industry as the chief supplier of bargaining chips for a negotiating process of indefinite duration and questionable prospects. In this regard, the long-term maintenance of the oil and gas control provides a regrettable contrast to the Carter Administration's grain embargo -- which President Reagan lifted because he recognized that it had no appreciable impact on Soviet behavior, while singling out the farm community for

substantial economic losses. Indeed, the contrast becomes even more stark when one recalls that, as a result of continuing hardship in the domestic agricultural sector, the Administration has actually been offering to subsidize grain sales to the Soviet Union.

D. Impeding Soviet Energy Development/Shifting the Energy Policy of U.S. Allies

In 1980-1981, the Office of Technology Assessment ("OTA") conducted an extensive review of Soviet energy development, and the role played therein by the West in general and the United States in particular. OTA's published study, Technology and Soviet Energy Availability, found three major limitations on the short-run ability of the United States to use exports of petroleum equipment to obtain leverage over the Soviet Union: (1) there are very few types of oil and gas equipment for which the U.S. is the sole supplier; (2) the Soviet Union has shown that it has some capacity for doing without these few items, at least in the short-run; and (3) in the key sector for future Soviet energy growth -- namely, natural gas -- the United States has very little to offer that is unique, with the possible exception of construction equipment.^{23/}

There is room for debate as to how successfully the U.S. Government challenged these basic conclusions with the sweeping 1981-1982 export restrictions on oil and gas

equipment and technology. A case can be made that the so-called "pipeline embargo" created some logistical problems for the Soviets, which they have not addressed very successfully in those areas -- notably compressors -- where they have had to fall back in large measure on indigenous technological capacity.^{24/} However, in other key equipment areas where the Soviets were able to turn to foreign suppliers -- for example, pipelaying tractors -- the Soviets did so quickly and, it appears, without substantial disruption to their development efforts.

Moreover, although it is clear that there have been delays in Soviet completion of compressor stations for the major export pipeline, it is by no means clear to what degree comparable delays would have occurred without the "pipeline embargo" -- given the rigidities in the Soviet economic system and the difficulties it has had in efficiently absorbing and applying Western energy technology. Nor is it clear that the "second-best" solutions adopted by the Soviets -- such as the substitution of added line capacity for compressor stations, and of other prime movers for gas turbines -- have significantly impeded Soviet ability to deliver gas to Western Europe over the long-run (although there have certainly been some short-run costs associated with these "second-best" solutions).^{25/} Indeed, even in the short-run, the Soviets appear to have met or exceeded their

original delivery schedules for gas flowing through the export pipeline to Western Europe.

Regardless of the outcome of this debate over the effects of the 1981-1982 restrictions, it is very difficult to make the case that the current oil and gas control has any appreciable impact on Soviet energy development (other than to discourage use of U.S. suppliers). Although U.S. equipment and technology is leading-edge in many areas, it is difficult to find items currently under control that do not face foreign competition at roughly comparable levels of technological sophistication. Indeed, a recently released CIA study found that a number of other developed countries can provide either state-of-the-art or high-level exploration equipment and technology, drilling and production technology, and -- at least in limited quantities -- severe environment drilling and production equipment.^{26/} Moreover, regardless of the relative technological sophistication of U.S. products and technology, there are very few instances in which technological alternatives cannot be found; "secondbest" solutions may entail some costs and delays, but major Soviet energy projects will move forward with or without U.S. participation.

There is no indication that U.S. leverage in the energy sector is likely to increase through a sudden willingness on the part of our allies to tighten restrictions on their own exports of petroleum equipment and technology to

the Soviet Union. Moreover, to the extent that the oil and gas control has been justified as a means of driving home to our European allies the need to address the potential dangers of energy dependence on the Soviet Union, that aim appears to have already been met. These allies are not likely to share precise U.S. concerns about their energy relationship with the Soviet Union; indeed, they have consistently rejected U.S. efforts in recent years to impose COCOM controls on a broader range of oil and gas equipment and technology. But the multilateral round of negotiations following the "pipeline dispute" seems to have generated a rough understanding with our allies regarding levels of reliance on Soviet natural gas that are appropriate for their circumstances. The "residual" oil and gas control that remained after the "pipeline dispute" contributed nothing to this negotiating process -- and now contributes nothing to the furtherance of that understanding with our allies regarding energy security.

V. COST OF THE OIL AND GAS CONTROL TO U.S. BUSINESS AND EMPLOYMENT

A. Introduction

As is always the case with unilateral export controls, the costs associated with the oil and gas control are difficult to quantify with precision. But these costs are certainly substantial, especially on smaller companies, and

they are particularly onerous at a time when the petroleum equipment and services industry is experiencing a dramatic downturn as a result of the worldwide drop in energy prices. Failure to address these costs may compound the effects of the current downturn to the point where U.S. companies are unable to regain past capacity during the next cyclical upturn (with long-term consequences for the international strength of the industry). If, as a result of current U.S. policies, the domestic petroleum equipment and services industry loses its economic and technological competitiveness, such policies will have done considerable harm to the U.S. trade balance and U.S. energy independence. Retention of such policies would seem particularly ironic at a point in time when high-level Administration officials and key members of Congress are expressing considerable concern about the national security consequences of conditions in the domestic petroleum sector.

It is PESA's belief that the oil and gas control has cost the U.S. petroleum equipment and services industry hundreds of millions (and quite possibly billions) of dollars in lost orders since 1978, and thousands of U.S. jobs. Perhaps of even greater long-run importance, the oil and gas control has substantially boosted the international strength of the industry's foreign competitors -- both through the economic and technological benefits to be derived from

participation in the Soviet market, and through the damage the control has done to the international reputation of the U.S. industry. Such direct costs to the U.S. industry inevitably produce indirect losses for the U.S. economy as a whole. Indeed, the U.S. export and employment effects are in some ways even more aggravated, because, to the extent U.S. petroleum equipment companies have succeeded in maintaining a small presence in the Soviet market, it has frequently been by moving production and R&D operations abroad.

Ironically, then, the attempt by the United States to make use of its supposed leverage in the petroleum equipment sector during the 1978-1982 period has led to a significant reduction in our ability to exercise leverage in this sector, now and in the future -- by strengthening foreign competitors, by weakening the U.S. industry, by encouraging U.S. companies to move their operations offshore, and by encouraging Soviet efforts to meet their own equipment needs.

B. Loss of the U.S. Share in the Soviet Market

The Soviet market for oil and gas equipment and services is the largest in the world, and is likely to remain that way for some time to come. The Soviets have launched massive projects to develop untapped energy resources over the last decade, particularly in Siberia. Failure to get in on the ground floor of these multi-stage projects has meant

loss of not only major short-run contracts, but the ability to compete effectively for subsequent stages as well. In addition, failure to be awarded a part in these projects means the loss of the substantial preparatory costs commonly associated with sales in the Soviet Union.

In 1983, the Soviets purchased approximately \$1.7 billion worth of oil and gas equipment and technology from non-Communist suppliers. Of this amount, U.S. exports accounted for about \$6.8 million (0.4 percent). The major Western suppliers to the Soviet market are currently our European allies (particularly Italy, West Germany and France), with major sales by Japanese, Canadian, and U.K. companies as well. By contrast, during the 1970's, U.S. exports accounted for 15-45 percent of the Soviet market, generally ranking at least second or third among Western countries.^{27/} As indicated above, the Commerce Department has estimated that, if U.S. manufacturers had maintained their traditional share of the Soviet petroleum equipment and services market, they would have received about \$2 billion in orders during the 1979-1985 period instead of the \$170 million they actually received.^{28/} Based on the commonly used Commerce Department formula equating every \$1 billion in exports with 25,000 domestic jobs, this lost business amounts to almost 46,000 U.S. jobs.

If we focus solely on U.S. exports to the Soviet Union of exploration and production equipment, we find a similar pattern (based on Census Bureau estimates).

TABLE 1: U.S. Exports to the Soviet Union of Petroleum Equipment and Technology 29/

<u>Year</u>	<u>Amount</u> <u>(millions of \$)</u>
1978	35.0
1979	48.0
1980	2.2
1981	9.8
1982	11.5
1983	3.0
1984	1.9
1985	0.8
1986*	6.5

* Estimate based on figures for January through October, 1986.

Clearly, these figures indicate some improvement in 1986. However, it is important to note that: (1) 1986 exports are still expected to be under 20 percent of exports in either 1978 or 1979; and (2) over 90 percent of exports this year have consisted of spare parts (i.e., there has been less than \$500,000 worth of new equipment exports).

During these same years, Soviet imports of petroleum equipment and technology have increased sharply, and European, Japanese, Canadian and other foreign competitors -- who have no comparable export control or record of

foreign policy controls to overcome -- have stepped in without reluctance (indeed, with enthusiasm) to take the place of U.S. suppliers. The following table presents a broad overview of recent Commerce Department conclusions regarding the foreign availability of U.S. petroleum equipment currently subject to the oil and gas control (a much lengthier list of specific foreign competitors in 38 countries and over 2,000 product categories appeared as an attachment to PESA's comments last year regarding renewal of the oil and gas control.^{30/}

TABLE 2: Foreign Availability of Petroleum Equipment^{31/32/}

<u>Product Area</u>	<u>Foreign Sources</u>
<u>I. Exploration Equipment</u>	
A. Electronic Instruments (Non-COCOM Controlled Items): Magnetometers Underwater Acoustic Systems Data Acquisition Systems Underwater TV Systems	Soviet Union Western Europe Japan Australia South Africa Romania East Germany Poland
B. Drilling Equipment and Accessories: Drill Rigs Drill Bits Directional Drilling Tools Piping and Tubing Drilling Fluids and Mud	Soviet Union Western Europe Japan Australia Sweden Switzerland Austria Finland Singapore Venezuela Brazil Mexico Romania
<u>II. Production Equipment:</u>	
Oil Field Tubular Goods Deep Submersible Pumps Completion Equipment Enhanced Recovery Materials	Soviet Union Western Europe Japan Sweden Austria Finland Singapore Venezuela Brazil Mexico Argentina

<u>Product Area</u>	<u>Foreign Sources</u>
III. <u>Transmission-Related Equipment:</u>	
Pipelaying Equipment	Soviet Union
Pipewrapping Equipment	Western Union
Pipecoating Equipment	Japan
	Sweden
	Austria
	Venezuela
	Brazil
	Mexico
	Romania
IV. <u>Industrial Equipment</u>	
(Equipment Specially Designed to Produce Oil and Gas Equipment):	Western Europe
Metal Cutting Machines	Japan
Metal Forming Machines	
Assembly Machines	

Even if one focuses solely on equipment and technology that is either state-of-the-art or more than adequate for most needs, the CIA study referred to above found foreign availability for most major categories of items (as summarized in the following table).

TABLE 3: Foreign Availability of High-Level (or Better) Petroleum Equipment and Technology 33/

<u>Product/Technology</u>	<u>COCOM</u>	<u>Other Western Europe</u>	<u>Third World</u>
I. <u>Exploration Technology</u>			
A. Project Feasibility and Management Studies	X		
B. Technical Integration of Hardware and Software	X		

<u>Product/Technology</u>	<u>COCOM</u>	<u>Western Europe</u>	<u>Third World</u>
II. <u>Exploration Equipment</u>			
A. Seismic Survey Vessels	X		
B. Satellite Navigation Equipment	X	X	
C. Acoustic/Ultrasonic Sensors and Geophysical Equipment	X		
III. <u>Drilling and Production Technology</u>			
A. Project Feasibility and Management Studies	X	X	X
B. Technical Integration of Hardware and Software	X	X	X
IV. <u>Drilling and Production Equipment</u>			
A. Corrosion-Resistant Equipment	X (some categories)		(some categories)
B. High-Pressure/Temperature Equipment	X		(some categories)
C. Deep-Well Drilling Rigs and Tools	X	X	X
V. <u>Pipeline Construction Technology</u>	X		
VI. <u>Pipeline Construction Materials and Equipment</u>	X (some categories)		
VII. <u>Processing and Refining Technology</u>	X	X	X
VIII. <u>Processing and Refining Equipment</u>	X		X

Part of the U.S. loss in Soviet market share is attributable to the increasing international competitiveness of foreign suppliers, and to the rise in the value of the dollar (which has been only partially corrected in the past year). But it is indisputable that a substantial portion of this market loss is due to Soviet efforts to avoid U.S. suppliers after 1978, and especially since the "pipeline embargo." PESA members have experienced the "supplier of last resort" phenomenon in many business contacts with Soviet officials since 1978 -- to the point where a number of PESA members have dramatically reduced or eliminated altogether their efforts in the Soviet market.

It is also clear that Soviet officials have made a determined effort during this time period to avoid or lessen the impact of any future U.S. oil and gas sanctions, by using non-U.S. suppliers whenever possible, and by seeking to do business with foreign subsidiaries or affiliates of U.S. companies when U.S. participation has been deemed desirable for technological or other reasons. Indeed, there is some evidence that, even where the U.S. product or technology has been superior, the Soviets have sought to award all or part of important sales to foreign suppliers, in an apparent effort to stimulate the development of alternative foreign sources.

The Commerce Department has acknowledged this linkage between the oil and gas control and the relegation of the U.S. industry to "buyer of last resort" status:

As a result of the controls, the market share and sales by U.S. petroleum machinery and equipment suppliers in the Soviet Union have declined dramatically. . . . Soviet purchasers have questioned the reliability of U.S. firms as suppliers, in some cases not providing U.S. firms the opportunity even to bid on projects. U.S. companies have been urged at times to quote deliveries from non-U.S. production facilities. Despite the resumption of processing of export license applications after an eleven-month halt in 1981-1982, Soviet buyers have continued to direct contracts to non-U.S. suppliers.^{34/}

The problem of the perceived unreliability of U.S. petroleum equipment suppliers is not solved by the fact that the current licensing policy is one of general approval for a broad range of equipment falling under the oil and gas control. The Soviets are fully aware that such a licensing policy can be changed rapidly at any time, and that there is no reason to assume that any change from general approval to general denial would respect contracts that predated such a licensing change.^{35/} In addition, the licensing process itself is a disincentive to using U.S. suppliers -- not simply because of the amount of time it can consume, but also because it brings uncertainties to the transaction that need not be confronted with suppliers from other countries.

It is important to recognize that the industry has derived few benefits from the Administration's decision in

January, 1986 to change the licensing policy for non-manufacturing exploration and production technology from one of general denial to one of "case-by-case" review. Needless to say, operating, maintenance, and other types of non-manufacturing technology are frequently a key part of sales of oil and gas equipment. Had PESA been consulted in advance about this change in announced licensing policy, it would have noted the obvious: that "case-by-case" review is hardly a standard designed to encourage business from a suspicious buyer who expects to receive the normal technical support that goes along with most equipment purchases (including, where necessary, on-the-ground training, as well as updates and error corrections to operating and maintenance manuals).

More fundamentally (as noted above), the existence of any foreign policy control -- regardless of stated licensing policy -- presents the potential buyer with risks and delays it simply does not have to face in dealing with suppliers from other countries. Not surprisingly, the January, 1986 change in regulatory language did not produce either significant amounts of new Soviet business or a marked improvement in the U.S. industry's share of the Soviet market (as explained above, the estimated increase in U.S. exports in 1986 of exploration and production equipment is almost entirely attributable to sales of spare parts to the Soviets).

C. Damage to the International Position of the U.S. Petroleum Equipment and Services Industry

As the Commerce Department acknowledged in its January, 1986 report to Congress, the "reliability" problem that the U.S. petroleum equipment and services industry has experienced as a consequence of the oil and gas control is not limited to business dealings with the Soviet Union.^{36/} Since the United States has demonstrated that it is willing to use exports of petroleum equipment and technology as a foreign policy tool, other countries that might also find themselves the subject of shifting U.S. displeasure understandably take account of the uncertainty associated with using U.S. equipment and technology.

Although this group of countries is limited, the indirect results of such questioning spread far and wide, and manifest themselves in the efforts we have seen in recent years by foreign suppliers to move away from the use of U.S. oil and gas components and technology. This "engineering out" of U.S. parts and technology has occurred both because of particular concerns about future U.S. policy toward the Soviet Union, and because of more general concerns regarding the willingness of the United States to use export controls for foreign policy purposes and to impose those controls on activities outside the United States.

Elimination of the oil and gas control would obviously not solve the entire "reliability" problem that U.S. foreign policy controls have created for U.S. business. But, for the petroleum equipment and services industry, elimination of the control would remove the disincentive posed by the constant threat of a sudden change in U.S. licensing policy, and by the delays and uncertainties inherent in the licensing system. Failure to address these foreign efforts to "engineer out" U.S. components and technology will lead inevitably to a continuing reduction in business ties between the U.S. industry and leading foreign suppliers, with long-run damage to the technological position and revenues of the U.S. industry.

In addition, elimination of the oil and gas control, by giving the U.S. industry a new chance at the Soviet market, would give U.S. suppliers a chance to address a key consequence of their large-scale exclusion from that market in recent years: namely, the loss of competitive position in third markets, as foreign competitors have taken advantage of the economic and technological benefits of Soviet business to enhance their overall international position.

This spill-over effect in third country markets is too frequently ignored or undervalued. By shackling U.S. industry participation in the largest market for petroleum equipment and services, the oil and gas control promotes the

competitiveness of foreign suppliers of petroleum equipment and services, thereby impairing the U.S. position in other markets as well. The continued loss to foreign suppliers of the revenues, experience and economies-of-scale to be obtained from the Soviet market will naturally lead to still further weakening of the international position of the U.S. industry, inasmuch as the Soviet market represents one of the few in which huge energy projects are likely in the coming decade.

D. Specific Examples of Losses to U.S. Business and Employment

As indicated above, it is very difficult to quantify with precision the total costs associated with the oil and gas control -- both because it is difficult to allocate responsibility for such costs between the control and other factors that have played a role in reducing revenues and jobs in recent years, and because it is difficult to trace the indirect costs of the control to the U.S. economy at large. However, based on the experience of our members in the Soviet market since 1978 (including the statements of numerous Soviet trade officials regarding the rationale behind their purchasing decisions), we estimate that the U.S. petroleum equipment and services industry has lost literally hundreds of millions (and quite possibly billions) of dollars and thousands of jobs as a result of the oil and gas control.

In order to provide concrete examples of such losses, PESA sampled its members regarding the costs associated with the oil and gas control in late 1985, and asked for updated information in the fall of this year. The following are notable examples of the responses received:^{37/}

- o One member reported that, during the 1977-1980 period, it accounted for 100 percent of Soviet purchases of one type of production equipment, 40 percent of another type, and around 60 percent of a third type (for a total value of over \$60 million during that period). From 1981 on, the company sold none of this equipment to the Soviets, and Soviet purchases from U.S. companies have essentially been limited to the European subsidiaries of U.S. firms. Soviet purchasers have repeatedly told the company that U.S.-based manufacturers are no longer viewed as reliable suppliers, and have recently insisted on guaranteed delivery dates that are in no way contingent upon U.S. export licensing decisions.

- o Another member reported that it lost a \$70 million Soviet contract that it had been awarded in 1979 (the order was given to the European subsidiary of another U.S. company). Prior to this time, the

member accounted for about 30 percent of Soviet purchases in its product lines. It's market share quickly fell to zero, with most of that share absorbed by European subsidiaries of other U.S. companies. Although the member had some Soviet orders in 1986 (for the first time since 1981), sales remain substantially below those in the late 1970's.

- o Another member reported that, in large part due to the oil and gas control, it failed to get successive awards involving the supply of drilling, production and tubular products to various Soviet projects worth \$250 million, \$3 million, \$1.5 million, and \$100 million during the 1981-1985 period. For the major drilling machinery involved, two U.S. companies dominated the Soviet market prior to 1970. In recent years, the primary suppliers have been West German and Canadian companies.

- o Another member reported that, in large part due to the oil and gas control, it lost Soviet awards to foreign competitors worth \$20 million, \$8 million, \$120 million, \$50 million, and \$30 million during the 1978-1985 period. In one instance, the company

had won the order, only to lose it when advised that a license would not be issued (with 250 people laid off as a result). In another instance, the company had a lead position to supply oil field equipment through a European consortium, until the Soviets advised that non-U.S. sources were preferred (the order went to a Canadian company).

- o Another member reported that it lost a 30-40 percent share of the Soviet market in its product lines since imposition of the oil and gas control, worth \$40-50 million a year. It estimated job losses at 150-200, and reported that the Soviets have indicated they will not make any award worth over \$1 million where the product or technology would be subject to the oil and gas control.
- o Another member reported that it has lost orders valued at \$3 million, \$400,000 and \$477,000 in recent years, having been told in each instance that either the Soviet purchaser or the foreign general contractor was unwilling to accept the risks associated with the U.S. licensing process, even where the company was low bidder (the orders went to U.K. companies in each instance). The company had annual sales to the Soviet Union in the

millions of dollars prior to 1978, but it has been generally excluded from tenders and invitations to bid since imposition of the oil and gas control (with the Soviets turning to West German, British and French suppliers in its product lines). It estimated that the oil and gas control has cost it millions of dollars in lost sales, severe job losses, and substantial harm to its international reputation.

- o Another member reported that it has lost annual sales of about \$13-14 million as a result of the oil and gas control, and that foreign suppliers appear to have stepped in to take its share of the Soviet market.

Obviously, this list is illustrative rather than exhaustive. A more comprehensive survey of PESA's member companies would generate many more examples of business and job losses due to the control. In any event, the evidence produced in the sample presents, we believe, a compelling case for the proposition that the industry has suffered, and continues to suffer, substantial losses as a result of the oil and gas control.

VI. THE STATE OF THE U.S. PETROLEUM EQUIPMENT AND SERVICES INDUSTRY

Although the U.S. petroleum equipment and services industry has experienced cyclical downturns since the Second World War, the current one is unprecedented in terms of its severity and its implications for the long-run viability of the industry. The following table shows various measures of oil field activity at three points in time: (1) December, 1981 (the peak of U.S. oil field activity; (2) December, 1985 (before the price of crude oil collapsed); and (3) July, 1986 (after the price of crude oil collapsed).

TABLE 4: Measures of U.S. Oil Field Activity 38/

	Number/Price December, 1981	Number/Price December, 1985	Number/Price July, 1986	% Decrease 12/81 - 7/86	% Decrease 12/85 - 7/86
Rotary Rigs	4520	1950	686*	85%	65%
Seismic Crews	703	326	158	78%	52%
Well Permits	10,606	6081	2413	77%	60%
Service Rigs	5478	4987	2782**	49%	44%
Crude Oil Price***	\$35.00	\$27.25	\$12.25	65%	55%

* Lowest figure since records were first kept (1940).

** June, 1986 figure.

*** West Texas Intermediate.

The precipitous drop in oil field activity is fully reflected in employment, production, revenue, stock prices,

capitalization and bankruptcy figures for the petroleum equipment and services industry. In this regard, the following statistics are revealing:

- o In December, 1981, there were approximately 611,300 workers employed in the U.S. petroleum equipment and services industry; by December, 1985, the figure had dropped to 377,400, and had dropped again to 246,200 by October, 1986 (a 60% drop from January, 1982).^{39/}
- o U.S. production of steel pipe and tubing (a substantial percentage of which is oil country tubular goods) dropped from 10.3 million tons in 1981 to 4.1 million tons in 1985, and is estimated at 3.3 million tons for 1986.^{40/}
- o For 11 of the largest U.S. oil service and drilling companies, the earnings picture will shift from aggregate earnings of \$2.2 billion per year during the 1980-1982 period to estimated aggregate operating losses of just under \$500 million in 1986.^{41/}
- o For these same companies, stock price per share has dropped 60-95 percent from 1981 highs to mid-September, 1986 prices,^{42/} and their aggregate

market capitalization has dropped 81 percent from 1980-1981 peaks to the end of July, 1986.^{43/}

- o The number of bankruptcy filings in the Houston area jumped by 75 percent from the first quarter of 1985 to the first quarter of 1986 (compared to a 12 percent increase in business failures for the nation as a whole).^{44/}

Needless to say, the petroleum equipment and services industry is primarily dependent upon the drilling for and production of oil and gas. Drilling expenditures in the U.S. in 1986 are estimated to be around \$10 billion, or roughly a quarter of what they were in 1982 (\$39.4 billion).^{45/} If the price of oil remains volatile and new markets cannot be found, much of the equipment and services industry could well disappear within the next two years, and the dispersion of skilled personnel would substantially complicate any subsequent rebuilding effort. The U.S. risks losing its independence and dominance in world markets for oil and gas equipment and technology, with obvious implications for the energy and trade positions of the United States.