VOLUME I

APPENDIX C

OVERVIEW OF FEDERAL STATUTORY AND ADMINISTRATIVE INCENTIVES AND INHIBITIONS AFFECTING THE DEVELOPMENT OF SYNTHETIC FUELS

I. Introduction

The purpose of this analysis is to review existing legislation to identify incentives and disincentives affecting synthetic fuels development and to identify the existence or absence of Federal statutory authorization for certain such incentives. This review will form a basis for discussing the necessity (or desirability) of new independent or clarifying legislation for the implementation of whatever incentives the Task Force may suggest in its final report. The incentives considered are listed in the left hand column of the chart that is Part IV hereof.*

This report relies on information provided by the Department of Defense, the Interstate Commerce Commission, the Department of Justice, the Department of Commerce, the Federal Power Commission, the Department of the Interior, the General Services Administration, the Energy Research Development Administration, the Environmental Protection Agency and the Council on Environmental Quality in response to inquiries requesting a synopsis of pertinent statutory and regulatory provisions affecting the Government's capacity to encourage the development and commercialization of synthetic fuels. No independent review of the cited legislation or regulations has been made. Obviously, a Department or Agency will be

*Table C1 on page C33

consulted in greater detail if the Task Force concludes that some administrative action or legislative modification within its jurisdiction is desirable.

II. Summary of Findings

The primary existing source of Federal promotion of synthetic fuels development (both in terms of specific inducements or assurances and organizational mechanisms) is the Federal Non-Nuclear Energy Research and Development Act of 1974 (P.L. 93-577). This Act, together with the Energy Reorganization Act of 1974 (P.L. 93-438) gives ERDA the authority, directly or in conjunction with private business, to engage in a variety of incentive RD&D programs. These are identified below and discussed in more detail in Part III of this report. There is some ambiguity in ERDA's authorizing legislation as to where the line is drawn between RD&D and large scale commercialization projects, and specific authorizing legislation may be necessary before any large scale commercialization project is implemented.

The Defense Production Act of 1950, as amended, contains broad language of authorization which could justify a program of synthetic fuels development if such development (and assured procurement) was deemed necessary to the national defense. There is no reason to believe that synthetic fuels were within the range of materials under consideration when this Act was passed. However, adequate supplies of fuel clearly were a primary concern of the legislation, and an argument could be made that the current uncertain supply of essential fuels justifies implemenation of a supply program within the ambit of the Defense Production Act. The success of this argument would appear to turn on the urgency and severity of the threat to the national defense and the appropriateness of sponsoring synthetic fuels as a solution thereto.

The two Acts described above are the most relevant to the Task Force's incentives deliberations. However, a few others warrant mention. The Strategic and Critical Materials Stock Piling Act of 1946, as amended, authorizes GSA procurement of designated materials. This mechanism could conceivably be used to induce synthetic fuels production by assuring a market, but, as with the Defense Production Act, the national defense rationale is questionable. The Federal Energy Administration Act and the Emergency Petroleum Allocation Act do not clearly define a R&D or implementation (as distinguished from policy making) role for the FEA in synthetic fuels commercialization. Section 4 of Executive Order No. 11790 (establishing the FEA pursuant

to the FEA Act) authorizes the FEA Administrator to exercise the authority vested in the President by the Defense Production Act, as amended, as it relates to energy. Finally, although one may question treating the current Internal Revenue Code as a completely neutral factor in synthetic fuels development, the position of the Treasury is that there are now no regulatory or statutory responsibilities within that Department which would either facilitate or impede the development of the synthetic fuels program.

Federal statutory and regulatory disincentives or inhibitions affecting synthetic fuels development are not aimed at synthetic fuels development per se but are the normal constraints one would expect to find in developing any new, large scale, capital intensive and raw materials dependent industry. These regulatory inhibitions may generally be classified as (1) environmental, (2) operational, and (3) apprehension of the antitrust implications of any joint exploratory, research, productive or marketing enterprise.

The disincentives or inhibitions noted herein do not purport to be even the beginning of a complete listing of the obstacles to be encountered in the development of a synthetic fuels commercialization program. However, the reporting organizations were asked to disclose any regulatory provisions bearing upon the Government's capacity to encourage the development of synthetic fuels on a large scale, and this report incorporates all items noted in their responses. A host of other problems, many of them with legal overtones, would obviously be encountered. These would include the availability and legal claim to water and other resources necessary to the synthetic process as well as the raw materials themselves; the availability and priority of energy; labor relations (particularly jurisdictional disputes); local and state regulatory requirements (zoning, building code, safety and occupational licenses and permits); severance and advolorem property taxation; and other factors. The regulatory inhibitions to be encountered by the synthetic fuels industry are not (since the industry is new) legally well defined. Disincentives have not been expressly addressed in legialation (as has been the case to some extent with incentives) and are not given to neat summation. Additional consideration by the people involved (as well as actual experience) is necessary before there can be any assurance that most of the inhibitions have been identified.

A. Primary statutory sources authorizing energy related RD&D, including specific incentives.

1. The Energy Reorganization Act of 1974 (P.L. 93-438)

(a) Section 107(a) authorizes the Administrator of ERDA to conduct R&D pertinent to the acquisition of knowledge in energy matters and to engage in related contracts, agreements and loans. Some DOI R&D programs are transferred to ERDA.

2. The Federal Nonnuclear Energy Research and Development Act of 1974 (P.L. 93-577)

(a) Section 4(e) instructs the Administrator of ERDA to "initiate programs to design, construct and operate energy facilities of sufficient size to demonstrate the technical and economic feasibility of utilizing various forms of nonnuclear energy."

(b) Section 6 instructs the Administrator of ERDA to submit, and annually revise, a plan for energy research, development and demonstration.

(c) Section 7(a) authorizes the Administrator of ERDA to assist and participate in a variety of RD&D organizational arrangements, specifically, (1) joint Federal-industry experimental, demonstration, or commercial corporations (subject to congressional approval and certain limiting guidelines); (2) contracts with non-Federal entities; (3) contracts for the construction and operation of federally owned facilities; (4) Federal purchases or guaranteed prices for the products of demonstration plants or activities (subject to certain limiting guidelines and congressional approval); (5) loans to non-Federal entities conducting demonstrations of new technologies; and (6) incentives (including financial awards) to individual inventors.

(d) Section 8(a)(2) authorizes the Administrator of ERDA to "enter into cooperative agreements with non-Federal entities to demonstrate the technical feasibility and economic potential of energy technologies on a prototype or full-scale basis."

(e) Section 9 provides for Government patent waivers and liberal licensing policies to encourage research and innovation.

3. The Defense Production Act (50 App. U.S.C. §2061 et seq.)

The Act, as amended, authorizes the President to take a broad range of actions to promote the national defense, including the expansion of productive capacity and supply. Insofar as these powers relate to the production, conservation, use, control, distribution and allocation of energy they have been delegated to the Administrator of the FEA.

(a) Title I of the Act provides authority for assigning priorities for contract performance as well as for allocating materials and facilities as the President may deem necessary or appropriate to promote the national defense. Thus, only if its is found that priorities or allocations support to expedite the production of synethetic fuels is for the "national defense," can this title of the Act be applied.

(b) Title III of the Act authorizes specific activities to expedite production and deliveries. These include loan guarantees (not to exceed $20,000,000 by any one agency without congressional approval), loans to private business (subject to congressional disapproval if greater than $25,000,000), and purchase commitments (including subsidies in some situations).

B. Constraints

1. Environmental

(a) Possible requirements of preparation of an environmental impact statement (National Environmental Policy Act of 1969).

(b) New source performance standards - affecting both production and utilization of synfuels - re air quality (Clean Air Act Amendments of 1970, Section 111).

(c) Hazardous pollutant emission standards - affecting both production and utilization of synfuels - (Clean Air Act Amendments of 1970, Section 112).

(d) State air quality implementaion plans required by federal statute (Clean Air Act Amendments of 1970, Section 110).

(i) Maintenance of the applicable national ambient air quality standards

(ii) Program to prevent significant deteriora tion of air quality

(iii) A regulatory program for the pre-construc tion review of new sources of air pollution

(e) Obtaining, if necessary, point source discharge permits pursuant to the National Pollutant Discharge System (Federal Water Pollution Control Act Amendments of 1972).

(f) State water quality standards and water quality management plans (Federal Water Pollution Control Act Amendments of 1972).

(g) Compliance with limitations applicable to "underground injections" (Safe Drinking Water Act of 1974).

2. Operational

(a) Regulation of interstate pipeline transmissions, other than natural or artificial gas (Interstate Commerce Act).

(b) Prohibition against carrier transporting its own products (Interstate Commerce Act).

(c) Allocation of railroad cars transporting coal (Interstate Commerce Act).

(d) Regulation (including price) of interstate transmission of synthetic gas once mixed with natural gas (Natural Gas Act).

(e) Approval of any mine development plan (DOI-U.S. Geological Survey).

(f) Obtaining of necessary plant and mine leases (DOI-Bureau of Land Management).

(g) Obtaining of necessary water allocations (DOI-Bureau of Reclamation).

(h) Compliance with Coal Mine Health and Safety Act of 1969 (DOI).

3. Antitrust

There are antitrust implications to all private consortia. No specific exemption from the antitrust laws exists with the regard to synthetic fuels development. The Department of Justice has not, in the recent past, been sympathetic to the argument that the requirements of unusually large poolings of capital and technology necessary to speed research, development, demonstration and commercialization of a vitally needed process or product warrant any alteration in or relaxation of the enforcement of the antitrust laws (although it has

reportedly issued guidelines suggesting that parties may, in certain circumstances, act in concert with regard to R&D projects). On this subject, the Department of Justice has made the general observation that business combinations are not illegal per se, and that an illegal restraint of trade must be shown, while expressing skepticism as to the need for antitrust exemption in the R&D area. DOJ's position is that here, as elsewhere, competition is the best spur to innovation. Having adopted this attitude with regard to R&D, it could be expected that the Antitrust Division would be even less sympathetic to relaxation of the antitrust laws in the commercialization (marketing) phase.

The Antitrust Division has at this stage declined to comment specifically on the applicability of the antitrust laws to the synthetic fuels commercialization program except in response to a specific policy assertion. In general, the Department is not inclined to lay down administrative guidelines or interpretations with respect to private participation in a pooling of resources effort, or, absent a specific proposal, to evaluate the necessity for statutory exemptions. The Task Force may wish to evaluate this issue further to determine whether a basis exists for at least a preliminary conclusion that an antitrust exemption is a necessary and worthwhile incentive (or at least a problem whose parameters need further definition). The issue could then be further explored with Justice.

III. Summary of Reportedly Applicable Legislation.

This part restates the responses of the reporting Agencies and Departments as to what legislation and regulations within their purviews affect synthetic fuels commercialization. Where appropriate, such responses have been reproduced verbatim. However, conclusory statements have been added which should not necessarily be attributed to the reporting Agencies and Departments.

The Energy Reorganization Act of 1974 (P.L. 93-438)

Title I establishes the Energy Research and Development Administration (ERDA) and grants to ERDA certain powers and responsibilities. Section 103 broadly defines the research and development responsibilities of ERDA, e.g., exercising central responsibility for planning, coordination, and management of R&D programs respecting all energy sources [§103 (1)]; encouraging and conducting R&D, including the demonstration of commercial feasibility and practical applications related to the development and use of energy [§103(2)]; and participating in and supporting cooperative R&D projects which may involve contributions by public or private persons or agencies of financial or other resources to the performance of the work [§103(5)].

Section 104(e) in transferring certain functions of other agencies to ERDA, authorizes ERDA to exercise any authority available by law to other agencies which may be necessary to perform the transferred functions. ERDA, therefore, assumed certain authority previously granted to Interior and EPA (discussed below) and other agencies.

Section 107(a) of the Act specifies the powers available to the Administrator of ERDA. These include:

-- making "arrangements (including contracts, agree ments and loans) for the conduct of research and development activities with private or public institutions or persons, including participation in joint or cooperative projects of a research, developmental or experimental nature...."

-- making payments, and

-- taking such steps as he may deem necessary or appropriate to perform functions vested in ERDA by this or other laws.

Section 107(d) authorizes the Administrator to acquire copyrights, patents, applications for patents, designs, etc., as well as licenses themselves.

The Act, therefore, grants to ERDA a wide variety of powers. However, under Section 305, exercise of these powers is subject to subsequent and specific annual authorization and appropriation of funds (except as other laws granting authority to ERDA may specifically so provide). The Act contains repeated references to R&D activity, and it is not clear that it would support ERDA's sponsorship of a large scale commercialization effort.

Authority Transferred to ERDA by Section 104(e) of the Energy Reorganization Act

The Act transfers several DOI programs to ERDA. Among the authorities so transferred are those applicable to the Office of Coal Research. 30 U.S.C. §661, et. seq. provides authority to ERDA to:

-- develop, through research, new and more efficient methods for utilizing coal;

-- contract for, sponsor and promote research with others; and

-- cooperate with other federal and state agencies for the above purposes.

This authority is subject to certain limitations which may be important, e.g., a requirement (30 U.S.C. §666) that all data developed therefrom be available to the public.

The Act also transferred certain functions of the Bureau of Mines to ERDA, including those concerning fossil fuel energy R&D programs conducted by the Bureau's energy centers and synthane plant (which are intended to develop alternative energy resources). By virtue of this transfer, ERDA assumed the authorities set forth in 30 U.S.C. §1, et. seq., including authority to:

-- conduct studies concerning utilization of mineral substances with a view to increasing economic development;

-- determine the commercial and economic practicality of utilizing lignite coal and peat for the production of fuel oil, gasoline substitutes and other commodities, and cooperate through agreements with other public and private entities to that end; and

-- study the possibility for development of a commercially practicable method of converting coal into all-purpose fuels, and to erect such plants and acquire machinery as may be necessary to that end.

Finally, the Act transferred to ERDA the authority granted by 30 U.S.C. §321 to the Bureau of Mines to develop plants for the production of synthetic liquid fuels from coal, oil shale and other substances. This includes authority to construct, maintain and operate (for not more than 11 years

beginning in 1944) demonstration plants for the production of synthetic fuels, including fuel from agricultural or forestry products. The statute provides that the plants "shall be of the minimum size which will allow the Government to furnish industry the necessary cost and engineering data for the development of a synthetic liquid-fuel industry and of such size that the combined production of all the plants constructed in accordance with this chapter will not constitute a commercially significant amount of the total national commercial sale and distribution of petroleum and petroleum products." The Department of Interior, in response to an inquiry from ERDA, has said that this authorization has not been utilized recently and has lapsed (in which case it is hard to understand the reason for reference to it in the Act).

The Act also transferred to ERDA EPA's functions with respect to research, development and demonstration of alternative automotive power systems. The authority of EPA, in this regard, includes a program for the prevention and control of all pollution resulting from fuel combustion (42 U.S.C. §1857b-1). As a result, ERDA is authorized to:

-- make federal grants to others to assist in acquiring or constructing new methods or devices for preventing or controlling discharges of pollutants to the air;

-- construct, operate and maintain, or assist in meeting the cost of construction, operation or maintenance of demonstration plants or processes for the purposes set forth above.

To carry out these purposes, the cited legislation authorizes R&D programs, and the establishment of facilities and test sites to carry out such programs. Since development programs involving alternative propulsion systems should logically include development of alternative fuels for such systems, this legislation may constitute additional authority in the synthetic fuels area.

The Federal Nonnuclear Energy Research and Development Act of 1974 (P.L. 93-577)

This Act provides specific guidance and authority for ERDA's programs to develop new synthetic fuel sources. Subsection 4(c) instructs the ERDA Administrator to:

> utilize the funds authorized pursuant to this Act to advance energy research and development by initiating and maintaining, through fund transfers, grants, or contracts, energy research, development and demonstration programs or activities utilizing the facilities, capabilities, expertise, and experience of Federal agencies, national laboratories, universities, nonprofit organizations, industrial entities, and other non-Federal entities which are appropriate to each type of research, development, and demonstration activity;

Subsection 4(e), directs the Administrator to:

> intitiate programs to design, construct and operate energy facilities of sufficient size to demonstrate the technical and economic feasibility of utilizing various forms of nonnuclear energy.

Subsection 5(b)(2) lists several criteria to be considered by the Administrator in choosing among R&D undertakings, including the necessity of Federal assistance, the amount of investment required and whether or not the profit potential is sufficient to attract private capital.

Section 6 of the Act directs that a comprehensive plan be developed by June 30, 1975. It will be designed to achieve, among other things:

-- acceleration of commercial demonstration of technologies for producing substitutes for natural gas including coal gasification, provided that the Administrator shall invite and consider proposals from potential participants based upon Federal assistance and participation in the form of a joint Federal-industry corporation, and recommendations pursuant to this clause shall be accompanied by a report on the viability of using this form of Federal assistance or participation;

-- acceleration of commercial demonstration of technologies for producing syncrude and liquid petroleum products from coal, provided that the Administrator shall invite and consider proposals

from potential participants based upon Federal assistance and participation through guaranteed prices or purchases of the products, and recommendations pursuant to this clause shall be accompanied by a report on the viability of using this form of Federal assistance or participation;

-- demonstration of the production of syncrude from oil shale by all promising technologies, including in situ technologies;

-- demonstration of new and improved methods of extraction of petroleum resources;

-- determination of the economic and commercial viability of production of synthetic fuels such as hydrogen and methanol; and

-- demonstration of the economic and commercial viability of in situ coal gasification.

Section 7 of the Act then specifies the powers available to ERDA to provide Federal assistance to projects for development of new technologies. These include:

1. joint Federal-industry experimental, demonstration or commercial corporations (however, use of this mechanism is subject to a number of stringent limitations, including; Congressional authorization of each corporation; a 90% limitation on Federal contribution; a single congressional funding authorization; a nine person board of directors, five appointed by the president with the advice and consent of the Senate and four appointed by the President on the basis of recommendations received by him from non-Federal entities; a twelve year limit on Federal participation, turnover of patent rights to to the Administrator and limitations on use of the revenues received by the corporation);

2. contractual arrangements with non-Federal participants;

3. contracts for construction and operation of federally-owned facilities;

4. federal purchases or guaranteed prices of the products of demonstration plants (however, use of price supports is subject to certain limitations including; congressional authorization of each price support program; competitive bids to determine the minimal amount of Federal price support needed; EPA oversight and a single congressional funding authorization;

5. Federal loans to non-Federal entities conducting demonstrations of new technologies; and

6. incentives, such as financial awards, to individual inventors.

Section 8 of the Act authorizes ERDA to enter into cooperative agreements with non-Federal entities to demonstrate the feasibility of new energy technologies. Such arrangements may include financial contributions by the Federal Government in the form of money, property or services. Under subsection 8(c), however, such financial awards are to be limited to the federal share of the total design, construction, operation and maintenance costs (implying less than 100% Federal funding). If the Federal investment in construction costs exceeds $50,000,000 specific authorizing legislation is required.

Section 9 gives ERDA broad patent waiver and licensing authority as an inducement to contractors and rapid use of whatever information may be developed. However, such actions by the Administrator are subject to detailed requirements and conditions.

Finally, Section 12 authorizes the President to allocate supplies of material and equipment which he determines are essential to carry out the purposes of the Act, under certain conditions. Any such allocation must be submitted to Congress and will not be effective until 30 days thereafter. The President's order is subject to veto by concurrent resolution.

Federal Energy Administration Act of 1974 (P.L. 93-275)

Section 5(a) of the Act states that:

> the Administrator shall be responsible for such actions as are taken to assure that adequate provision is made to meet the energy needs of the Nation. To that end, he shall make such plans and direct and conduct such programs related to the production, conservation, use, control, distribution, rationing, and allocation of all forms of energy as are appropriate....

Although the FEA is assigned the primary role in overall energy policy making, and its authority includes specific reference to plans and programs related to "production," the Act does not appear to contemplate FEA appropriations to implement RD&D or commercialization programs of the type contemplated by the Task Force. The requirement in Section 5(a) that the Administrator's actions be pursuant to authorities or functions (1) transferred to or vested in him by the Act, (2) delegated to him by the President pursuant to authority vested in the President by law, and (3) vested in him by Congress restrict FEA's role in this area. Therefore, if FEA were to provide substantial economic incentives to synthetic fuels development, production and commercialization (except pursuant to the provisions of the Defense Production Act discussed below) additional legislation would be necessary.

Emergency Petroleum Allocation Act of 1973 (P.L. 93-159) and Section 232 of the Trade Expansion Act (the Oil Import Program).

Neither the Price and Allocation Regulations nor the Mandatory Oil Import Program, deals with synthetic fuels development, although 10 CFR §211.29 describes the FEA's role in allocating feedstocks for existing and new synthetic gas plants, This omission reflects the general regulatory (as distinguished from RD&D) focus of these programs. However, there is an obvious link between price regulation and development of alternative (synthetic) fuels. To the extent that the FEA controls or influences the price of fuels through its implementation of the EPAA price regulations, or through imposition of import fees under the oil import program, the commercial prospects of at least some synthetic fuels are affected, e.g. deregulation of "old" oil and increased oil import fees would, through raising the price of competing fuels, enhance synfuels commercialization. However, two caveats should be expressed. First, the increase of oil import fees by Presidential Proclamation is based on a national security justification which is tied directly to the need to reduce imports. Thus, while synthetic fuels may benefit from such action, the purpose of the fees is to dampen demand, not protect domestic fuels. It is doubtful that the authority could be used solely to provide price protection for development of synthetic fuels. Secondly, while it is true that the EPAA price control system on crude oil, by maintaining artifically low prices, discourages development of alternative competing fuels, there is little program flexibility involved in adjusting crude oil prices. Analytically, the EPAA should be viewed as a disincentive.

Interstate Commerce Act

Section 1(1)(b) of the Act gives the Interstate Commerce Commission jurisdiction over the interstate transportation of all commodities by pipeline except water and natural or artifical gas. In 1973 the Commission regulated 100 common carrier pipeline companies. Included was a coal slurry pipeline, Black Mesa Pipeline Inc. Pipelines are subject to those provisions of the Act which forbid unjust discrimination and undue preference, that require just and reasonable rates, reasonable facilities for the interchange of traffic, compliance with the long- and short-haul clause of section 4, and compliance with accounting, reporting, and valuation regulations and the procedural provisions of the Act in respect to rates and tariffs. The Commission's authority over pipelines is not as extensive as that over railroads. Pipelines are not required to obtain certificates of public convenience and necessity from the Commission. In addition, the Commission has no jurisidiction over such aspects of pipeline operations as issuance of securities, formation of interlocking directorates, mergers and consolidations, construction and the abandoment of lines, or the granting of credit. Pipelines are not subject to the "commodities clause" [Section 1(8)] prohibiting transportation of the products of their owners.

To the extent that railroads may be involved, the following could be relevant. Section 1(8), the "commodities clause," prohibits a railroad from transporting any commodity, except timber and timber products, that are manufactured or produced by it. In the past the courts have allowed railroads to skirt this provision through various devices such as establishing joint ventures and subsidiary companies to manufacture or produce railroad-owned commodities. It should be noted that several railroads, particularly the Burlington Northern, hold extensive coal reserves.

Section 1(9) generally requires railroads to construct and operate switch connections upon application by any shipper tendering interstate traffic for transportation. The connection must be reasonably practicable and able to be installed with safety. Section 1(12) requires railroads to make just and reasonable distribution of coal cars to mines served by them. During periods of car shortages, railroads must reasonably prorate the available supply of cars to the mines. Finally, under Section 1(18), railroads must obtain from the Commission a certificate of convenience and necessity prior to any extension, construction, or abandonment of their lines.

Legislation currently being considered by the Congress would grant a federal right of eminent domain to coal or coal slurry pipelines. The "Coal Pipeline Act of 1974" (S. 3879) which passed the Senate on September 18, 1974,

would require that in order to obtain the eminent domain power the carrier must first hold a certificate of public convenience and necessity issued by the Commission. House versions of this legislation would place this certification authority with the Department of Interior. A "commodities clause" similar to section 1(8) of the Interstate Commerce Act is contained in all versions of the bill that have been submitted so far.

National Environmental Policy Act of 1969 (P.L. 91-190)

The Act (NEPA), among other things, requires that an Environmental Impact Statement (EIS) be issued for every anticipated major Federal project. Although not a permit or a license in the strictly legal sense, the absence of an approved final EIS can stop a given project by providing groups opposed to it with the grounds for a court injunction. The question is procedural rather than substantive, since NEPA requirements are theoretically satisfied once the final EIS is issued, even though it finds the project to be environmentally unacceptable. However, in the past, more than one project has been considerably delayed while various legal challenges concerned with the EIS were being resolved. Thus, the major uncertainty under NEPA is not whether or not the project will be allowed to proceed, but rather the length of time it will be delayed pending the issuance of an EIS that will stand up in court. The cost of such delays (construction financing and inflated raw materials and labor costs) is an obvious potential hazard to any synfuels project.

The grounds for legal challenge include the need for an EIS, the responsible agency, the timing of the EIS, and its adequacy. The CEQ has issued guidelines for federal agencies on these issues, 40 CFR §1500.1 to §1500.14. With regard to the need for an EIS, Section 1500.6 (d)(1) states "In many cases, broad program statements will be required...Subsequent statements on major individual actions will be necessary where such actions have significant environmental impacts not adequately evaluated in the program." This implies that for the synfuels commercialization program, an overall EIS is required, and presumably an individual EIS for each project. An EIS may also be necessary to accompany any incentives legislative package. EIS's may also be required for related programs such as coal leasing or water diversion projects.

Another legal issue is whther the appropriate agency has prepared the EIS. With regard to synfuels, the selection among ERDA, FEA or DOI to prepare a particular EIS can be challenged in court. Section 1500.7(b) states when more than one agency is involved, "Agencies in such cases should consider the possibility of a joint preparation of a statement by all agencies concerned, or a designation of a single lead agency

to assume supervisory responsibility...Factors relevant in determining a lead agency include the time sequence in which the agencies become involved, the magnitude of their respective involvement, and their relative expertise with respect to the project's environmental effects."

The point in time when the EIS is issued can also be the grounds for a suit. The EIS is intended to serve as the means of assessing the environmental impacts of a proposed decision, rather than as a justification for decisions already made. Section 1500.7(a) states: "draft statements on administration actions should be prepared and circulated for comment prior to the first significant point of decision in the agency review process." The first point of decision for a project may vary depending upon the type of incentive chosen. The award of a fixed procurement contract may be construed as a significant decision point, whereas this concept wouldn't apply to a tax credit.

In summary, the cost and delay occasion by NEPA constitute a substantial disincentive, aggravated by the fact that in dealing with new processes it is very hard to anticipate what the EIS requirements will be and on what grounds the EIS may be attacked. The general guidelines offered by the Council on Environmental Quality (40 CFR Part 1500) provide a drafting framework but no assurance of compliance. The necessity of complying with NEPA suggests that the ease (or, more accurately, relative lack of difficulty) in surmounting this obstacle be a key variable in deciding which synfuels processes are emphasized, on what scale and which incentives are utilized. As noted above, an EIS re the whole commercialization program is likely to be required at some time, and fairly early identification of the "lead" or "responsible" agency seems desirable. Similarly, the time, expense, and labor associated with preparing individual EIS's may be an argument for emphasizing incentives that concentrate rather than diffuse responsibility and decision making, i.e. direct financial incentives rather than those requiring continued government involvement.

Clean Air Act Amendments of 1970 (P.L. 91-604)

There are three provisions under the Act which could affect synthetic fuels production: (1) new source performance standards, (section 111), (2) hazardous pollutant emission standards, (section 112) and (3) State Implementation Plans (section 110).

1. Performance standards for new stationary air pollution sources are promulgated by EPA pursuant to section 111. Such standards, when promulgated, must reflect "the degree of emission limitation achievable through the application of the best system of emission reduction which (taking

into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated," Section 111(a)(1). Such standards could be promulgated for the plants manufacturing synthetic fuels. Standards also could be promulgated for the facilities using such fuels.

2. Hazardous pollutant emission standards for new and existing sources pursuant to Section 112 of the Clean Air Act have been promulgated for three pollutants and related industrial processes and uses. These pollutants are asbestos, beryllium and mercury. Standards are planned for vinyl chloride and taconite. Should the synthetic fuels production processes emit these sources they may be added to the lists of controlled industries.

3. State implementation plans are submitted to EPA for approval under Section 110 of the Act. Such plans contain three principle elements: (1) adequate provisions to attain and maintain the national ambient air quality standards; (2) a program to prevent significant deterioration of air quality and (3) a regulatory program for the pre-construction review of new sources of air pollution.

There is no authority for EPA to override state decisions which affect controls over synthetic fuel production sources due to the non-preemption aspects of Section 116. If the control is actually needed to attain the primary, or health-based, air quality standards, EPA has an affirmative obligation to assure that the States have adequate regulations or to promulgate federal regulations that will do the job. There is so much diversity among the 50 state implementation plans that there is no way of knowing whether any of the regulations would have current applicability.

Under the pre-construction review requirements, a new source must not only meet any applicable new source performance standard or hazardous pollutant standard but it also must not cause a violation of national ambient air quality standards. It must be consistent with any provisions for attainment and maintenance of these standards and may not exceed an applicable increment of air quality degradation as defined under the significant deterioration regulations.

EPA's regulations to prevent significant deterioration of air quality (NSD regulations) 40 CFR §52.21, 39 CFR 45210 et seq., December 5, 1974) apply only to emissions of SO_2 and particulate matter and include three basic requirements.

(a) All new sources in 18 designated major source categories must use best available control technology (BACT). Two of these source categories are (1) coal cleaning plants and (2) fuel conversion plants. EPA's regulations include a general definition of BACT, 52.01(f), but do not define

BACT for specific source categories. Thus, new coal cleaning plans and fuel conversion plants will have to apply an as yet undetermined BACT. This list of 18 major source categories will probably be expanded in the future and could include other facilities involved in synthetic fuels productions. As indicated earlier, new source performance standards are promulgated by EPA and once promulgated serve as an adequate definition of BACT.

(b) All areas cleaner than the national ambient air quality standards for SO_2 and particulate matter can be classified according to the amount of deterioration which is found to be permitted in such areas. Three classifications are set up: Class I, allowing a small incremental decrease in ambient air quality; Class II, allowing a moderate decrease in ambient air quality, (permitting, for example, 1,000 megawatt power plants); and Class III, allowing deterioration to national secondary ambient air quality standards.

At this time all clean areas (air quality better than the national primary ambient standards) are designated as Class II. The states can propose changes from Class II to Class I or Class III which will be approved by the Administrator if the State has adequately considered: "(1) growth anticipated in the area, (2) the social, environmental and economic effects of such redesignation upon the area being proposed for redesignation, (3) any impacts of such proposed redesignation upon regional or national interests." The Administrator will approve proposed redesignations which do not arbitrarily and capriciously disregard the above factors. Indian lands over which States lack jurisdiction can be redesignated only if proposed by the appropriate Indian Governing Body. Federal lands are subject to State redesignations except that the Federal Land Manager can propose a more restrictive designation, e.g. from Class II to Class I. Where a redesignation to a Class I area is proposed by one jurisdiction (State, Indian Governing Body or Federal Land Manager) but is protested by another jurisdiction as unduly restricting growth in that jurisdiction, the Administrator will determine whether the more restrictive designation should be permitted.

(c) All proposed new or modified sources in 18 designated major source categories must be reviewed to determine whether construction or modification of such source would result in an applicable increment being violated. This includes an impact assessment on adjacent areas as appropriate. Sources not in the 18 source categories can use up the increment but are not subject to preconstruction review because of administrative resource limitations.

In summary, the effect of the NSD regulations on synthetic fuels development is very difficult to determine at this time. Coal cleaning plants and fuel conversion plants

will need BACT, but what that is has not yet been determined. Where such sources can be located will depend on (1) the emission levels of such sources, (2) the emissions levels of other sources near a proposed site, and (3) the air quality deterioration increment proposed for various areas by States, Indian Governing Bodies and Federal Land Managers and approved by the Administrator. EPA's regulations are being challenged in court on nearly every major aspect of the NSD regulations. This litigation may not be finally resolved until over a year from now.

Federal Water Pollution Control Act Amendments of 1972 (P. L. 92-500).

There are two major provisions under this Act which could affect synthetic fuels production: (1) the National Pollutant Discharge Elimination System (NPDES) and (2) applicable state water quality standards and water quality management plans established within the statewide continuous planning process.

The first of these provisions, NPDES, establishes a national permit program covering all point source dischargers into the nation's waterways. EPA promulgates effluent guidelines for existing and new source dischargers based upon varying criteria under the Act which are applicable depending on when a source is constructed and when EPA issues the guidelines. For "existing sources," any source for which construction begins before the date when EPA issues new source performance guidelines, best practicable control technology currently available must be used by 1977 and best available technology economically achievable must be used by 1983. For "new sources," any source for which construction has begun after the date when new source requirements are proposed, best available demonstrated control technology must be used.

Permits are issued to sources which meet both effluent guidelines, as defined above, and also levels of control necessary to meet ambient water quality standards. The latter provision is based upon water quality standards and wasteload allocations established by the state continuous planning process and water quality management plans.

Statewide water quality management plans are currently under development. These plans will eventually comply with the requirements of Section 208 of the Act establishing all necessary controls on the location and extent of point source discharges, non-point runoff and related pollution problems. Water quality standards have been set for all waterways in the nation. However, many are now under review and changes are anticipated in conformance with the non-degradation provision of the Act. It would be next to impossible at this time to predict the impact of these requirements on synthetic fuels production.

Safe Drinking Water Act of 1974 (P. L. 93-523).

Synthetic fuels production can be affected by this Act where deep well injection, in situ processes and leachate problems from surface storage may be involved. Under the Act, states will be required to submit programs under which, by December 16, 1977, "underground injection" will be controlled by rules or prohibited without a permit from the state. The term "underground injection" has not yet been defined by EPA, but will include at least what is commonly termed "deep well" injection, and may include disposal into shallow wells or even unlined evaporation ponds. Injection will not be permitted if the state official changed with enforcing the regulations promulgated pursuant to the Federal guidelines finds that it endangers drinking water sources.

The programs required can be state permit programs or adopted rules which serve to pervent injection which endangers drinking water sources. The Administrator of EPA promulgates regulations for requirements under this provision. These regulations for state underground injection control programs, however, may not prescribe requirements which interfere with or impede: a) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production, or b) any underground injection for the secondary or tertiary recovery of oil or natural gas, unless such requirements are essential to assure that underground sources of drinking water will not be endangered.

Where an area is determined by the EPA Administrator to have an aquifer which is the sole or principal source of drinking water and which, if contaminated, would create a significant hazard to public health, new underground injection wells will require interim permits from the Administrator (until a State program is approved), and Federal financial assistance will be terminated for "projects" which the Administrator determines will contaminate the aquifer through a recharge zone.

Natural Gas Act of 1938.

A. Statutory Impact.

1. Section 7(c) of the Act, 15 U.S.C. 717f(c), requires certificate authorization prior to selling or transporting natural gas in interstate commerce. Although the FPC has interpreted Section 2(5) of the Natural Gas Act, 18 U.S.C. 717b, to mean that synthetic gas is not "natural" gas, any mixture of natural gas and artificial gas is natural

gas under the Natural Gas Act. 1/ FPC certificate authorization is therefore required to tap a supply of SNG into an interstate pipeline where the SNG will be mixed with natural gas. Once mixed, authorization to transport that mixture is also required. In ruling on such authorization requests the Commission will review all aspects of such a project, including the costs associated with the SNG plant in order to carry out its statutory duty to protect natural gas consumers from excess charges and to assure an adequate supply of natural gas.

2. Section 7(c) of the Act, 15 U.S.C. 717f(e), provides that "reasonable terms and conditions as the public convenience and necessity may require" may be attached by the FPC to its certificate authorizations. For instance, the FPC can, as it did in the Transwestern coal gasification project case 2/ , authorize the tap and transportation of SNG mixed with natural gas subject to conditions such as the initial price at which SNG when mixed with natural gas may be sold. In doing so the FPC provides adequate protection for consumers against imprudent and improper expenses while assuring all reasonable and prudent costs are recovered. 3/

3. Section 3 of the Act, 15 U.S.C. 7176, requires any person importing or exporting natural gas between the U.S. and a foreign country to first receive FPC authorization. Such authorization shall be issued unless the FPC finds it will not be consistent with the public interest. The extent to which import or export authorizations of natural gas or SNG and natural gas mixed are permitted or denied can impact favorably or unfavorably upon the development of SNG within the United States.

1/ El Paso Natural Gas Co., et. al., Opinion No. 663, 50 FPC 651 (1973), appeal docketed, Alice Henry, et al. v. F.P.C., No. 73-2090, D.C. Circuit.

2/ Transwestern Coal Gasification Company, et al., Opinion No. 728, issued April 21, 1975.

3/ Ibid, at mimeo, p. 17.

4. Sections 4 and 5 of the Act, 15 U.S.C. 717c and 15 U.S.C. 717d are rate sections. Section 4 requires that rates and charges for service by a natural gas company be on file with the Commission and sets out the procedures therefore, that rates may not be discriminatory, and that if not just and reasonable they shall be unlawful. Section 5 provides that the FPC may, upon finding a rate is unjust, unreasonable, unduly discriminatory, or preferenential, determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be observed and in force.

In Transwestern, supra, the Commission indicated the just and reasonable rate would be prescribed at a later date when the full costs of the project are known.

The FPC's jurisdictional grant of authority over transportation service in Section 1(b) of the Natural Gas Act, together with the requirement that "service" be non-discriminatory in Sections 4 and 5 of the Natural Gas Act, provide the FPC its authority over the allocation of natural gas during periods of shortage. 4/ The manner in which gas is allocated during periods of curtailment pursuant to those sections can potentially have an impact upon the independent development of alternative fuel supply sources including, but not limited to, SNG.

B. Regulatory Impact.

Certain of the FPC's Rules and Regulations are pertinent in addition to those providing generally for procedures to be followed when certificates, import or export authorizations, or rate approvals are requested pursuant to the above substantitve sections of the Act (See 18 CFR, Chapter I). The Commission's regulations, policies, and practices concerning rates are of course extensive due to the Commission's plenary jurisdiction over the rates of jurisdictional natural gas companies. Without enumeration of all rate regulations, it should be sufficient to note that as in Transwestern, where an SNG project requires some FPC authorization, the FPC can scrutinize those costs and apply its rate regulations via its conditioning powers in certificate cases and later in rate proceedings.

4/ F.P.C. v. Louisiana Power & Light Co., 406 U.S. 631 (1971).

1. 18 CFR 2.80 and 2.82 provide for procedures to be followed by applicants and the FPC with all certificate applications in order to comply with the National Environmental Policy Act of 1969. Although the FPC found the jurisdictional facilities of the Transwestern project do not involve a major federal action significantly affecting the human environment and so not requiring an environmental impact statement, each case must be treated separately and will be reviewed in terms of the need for a NEPA statement pursuant to the Commission's regulations. 5/

2. 18 CFR 2.78 6/ sets out the Commission's policy with respect to priorities of service during periods of curtailed deliveries. As noted above, the FPC's allocation of natural gas is grounded in its authority over transportation and the substantive requirements concerning "service" in Sections 4 and 5 of the Natural Gas Act. The policy expressed therein is subject to alteration in individual pipeline proceedings following hearing upon a curtailment plan filed pursuant to Section 4 or after a hearing initiated by the FPC pursuant to Section 5 of the Act.

Of particular relevance is Section 2.78(c)(10) providing that the capability to use alternate fuel, whether or not facilities have been installed, may place a particular customer in a lower priority than otherwise. It further provides that where the use of natural gas is for plant protection, feedstock, or process uses and the only alternate fuel is propane or other gaseous fuel then the consumer will nevertheless be treated as if he had no alternate fuel capability and would not be placed in the lower priority where he would otherwise be. To this extent, under current policy, the availability of SNG for plant protection, feedstock, or process uses does not necessarily lower a customer's gas curtailment priority.

5/ The need for an impact statement in the Transwestern case is one of the two primary issues on the appeal in Alice Henry, et al. supra

6/ As amended by Order No. 467-C, Utilization and Conservation of Natural Gas Resources--Natural Gas Act, Order Defining Procedures for Filing Requests for Relief From Curtailment, Docket No. R-469, issued April 4, 1974.

Mineral Leasing Act of 1920, as amended and supplemented 30 U.S.C. §§181-287).

A. Coal: Sections 2 through 8 of the Act (30 U.S.C. §§201-208) provide for the disposition of deposits of coal on the public domain owned by the United States. Under §2 disposition may be either directly by lease, or the grant of a prospecting permit which may lead to a lease if the permittee shows that the lands subject to the permit contain coal in commercial quantities. The Mineral Leasing Act for Acquired Lands (30 U.S.C. §§351-359) incorporates by reference most provisions of the 1920 Act.

The Task Force should consider whether the limitations both on the number of acres which may be held by a person, association, or corporation under coal lease in any one state (46,080 acres), as provided in 30 U.S.C. §184, could be an impediment to the development of the synthetic fuels program.

Section 7 of the Act provides that coal lessees are required to pay a royalty to the United States which shall not be less than 5 cents per ton of two thousand pounds, due and payable at the end of each third month succeeding "that of extraction of the coal from the mine." This formula for the computation of royalties does not appear to be workable with respect to coal gasification by an in situ process. Consequently, it may be necessary to seek new legislation providing a new method of computation of royalties for coal utilized in the in situ coal gasification process.

Section 7 of the Act specifies that coal leases shall be for indeterminate periods upon condition of diligent development and subject to readjustment of terms and conditions at the end of each twenty-year period succeeding the date of the lease. On first impression it would appear that this provision would facilitate rather than impede development of the synthetic fuel program insofar as it provides for no-fixed term leases. However, the requirement for diligent development could prove an impediment. In this regard, the Task Force may wish to consider the definition of the term "diligent development" in a recently proposed revision of the Department's regulations in 43 CFR §3500.0-5(e) which was published on December 11, 1974 in 39 Federal Register 43229 to determine what effect the adoption of this definition might have on the development of synthetic fuels from coal.

The Department's regulations governing the operations of Federal coal lessees under the Mineral Leasing Act of 1920, and the Mineral Leasing Act for Acquired Lands are found in 30 CFR Part 211. A proposed revision of Part 211 was published as proposed rulemaking in 40 Federal Register 4428 on January 30, 1975. The regulations govern both surface and underground operations and contain numerous provisions which

could have an impact on the development of synthetic fuel, such as provisions relating to pillar extraction, disposal of wastes, and methods of computi. royalty, and a careful analysis of their effect would be in order.

The Bureau of Land Management regulations covering leasing of coal are found in 43 CFR Part 3500. These regulations deal primarily with aspects of leasing such as lands subject to leasing, qualifications of lessees, fees, rentals, royalties, bonds, cooperative conservation provisions, and assignments or transfers of leasehold interests and subleases. They, of course, reflect the statutory provisions and as discussed above may have a significant impact on the development of the synthetic fuel program. The Secretary has broad discretion under the statute in establishing methods of leasing and the terms and conditions of leases.

B. Oil Shale.

Section 21 of the Mineral Leasing Act, as amended (30 U.S.C. §241) authorizes the issuance of leases for oil shale. Most aspects of leasing are left to the Secretary's discretion, but the Task Force should give serious consideration to the effect on oil shale development of the statutory provision limiting a person, association, or corporation to one lease of not more than 5,120 acreas. Proper development may require greater holdings. In particular, disposal of waste shale may require extensive additional acreage, and the Department has prepared legislation to authorize the granting of rights in additional land for this and other purposes.

Coal Mine Health and Safety Act of 1969

The Act (30 U.S.C. §§801-960) may have some impact upon the synthetic fuels program insofar as compliance with its mandatory health and safety provisions, and the regulations issued pursuant thereto, affect the productivity on coal mines. There is some evidence that the decline in coal production in recent months is at least partially attributable to enforcement of this Act. An analysis of the impact of this Act would be in order.

Strategic and Critical Materials Stock Piling Act of 1946, as amended (50 U.S.C. §§98-98h).

The powers of the Act are vested in the President. Most of these powers were originally delegated to the Director of the Office of Emergency Preparedness, but have since been transferred to the Administrator of General Services (who has sole responsibility for determining which materials are to be maintained in the National Stockpile and for determining the quantity and quality thereof). He is assisted by materials specialists in other government agencies. This process is generally characterized as "establishing national stockpile objectives."

The General Services Administration is also responsible for acquiring materials for the stockpile and for storing, maintaining, and disposing of them when they become surplus. Surplus disposals must be expressly authorized by Congress except for materials which are surplus by reason of obsolescence for use in war.

The President is authorized to release materials from the stockpile whenever in his judgment such releases are required for purposes of common defense. Unlike disposals of surplus materials (other than obsolete materials), "common defense" releases require no Congressional approval. E.O. 11051 authorizes the Administrator to make common defense releases from the stockpile, but only in the event of attack upon the U.S.

The Defense Production Act of 1950, as amended (50 App. U.S.C. §§2061-2166).

The Act authorizes actions by the President to effect priorities and allocations with respect to contracts or orders necessary or appropriate to promote the national defense, and, under certain circumstances, authorizes control of the general distribution of scarce and critical materials essential to national defense. The Act also contains authority for the expansion of productive capacity and supply, and for exempting certain voluntary agreements among private businesses from antitrust laws.

The functions authorized by the Act have been delegated by the President to the heads of various departments and agencies. Insofar as the authorities of the Act relate to the production, conservation, use, control, distribution and allocation of energy, the Administrator of the Federal Energy Administration is authorized by Executive Order 11790 to exercise the authority vested in the President by the

Act, (except section 708 thereof). Authority in other areas is delegated by Executive Order 10480, and the performance of the functions there described are subject to the direction and control of the Administrator of General Services.

Priorities and Allocations. In order to require priority performance of Government contracts or orders, programs must be found to be necessary or appropriate to promote the national defense. The Department of Commerce has the only active priority mechanism in its Defense Materials System and Defense Priorities System. Under these two systems, authorized claimant agencies place priority ratings on contracts and orders of defense materials. If such orders are not accepted, the agency may request special assistance from the Department of Commerce. If a properly placed directive is not honored, the Act provides for injunctive relief to guarantee such directive will be honored and criminal penalties for failure to honor such directive. Control of the distribution of material in the civilian market is prohibited by the Act unless the President or his delegate finds (1) that such material is a scarce and critical material essential to the national defense, and (2) that requirements of the national defense for such material cannot otherwise be met without creating a significant dislocation of the normal distribution of such material in the civilian market to such a degree as to create appreciable hardship. No such civilian allocation program is now in existence with respect to any material.

Loan Guarantees. To expedite production and delivery of materials or services under government contracts, the President may designate agencies engaged in procurement for the national defense to guarantee loans for the purpose of financing contractors in connection with performance of any contract or other operation deemed by the guaranteeing agency to be necessary to expedite production and delivery of materials or services under government contracts for the national defense. Any funds available to the guaranteeing agency for meeting national defense needs can be used for this purpose. Alternatively, the President may guarantee loans pursuant to section 302 of the Act.

Direct Loans to Private Business. To expedite production and delivery of materials or services to aid in carrying out national defense contracts, the President may, if financing is not otherwise available on reasonable terms, make provisions for loans, on such terms and conditions as he deems necessary, to businesses for expansion of capacity, development of technological processes, or production of essential materials, (including the exploration, development and mining of strategic and critical metals and minerals). Unlike the guarantee authority, funds available to agencies for general defense needs would not be available for making direct loans. Accordingly, appropriations would be required.

Purchases of Raw Materials and Development of Strategic Minerals and Metals. Under this authority, U.S. origin and foreign origin commodities may be purchased and then sold at a ceiling price or the current domestic market price. Purchases may be made at higher than the resale price if it is determined that supplies could not be effectively increased at lower prices or on terms more favorable to the government or are necessary to assure availability of the United States of oversea supplies. The President may also encourage exploration, development and mining of strategic and critical metals and minerals by commitments to purchase. In addition, if he finds that ceiling prices will result in a decrease in supply from high cost sources or that a temporary increase in cost of transportation threatens to impair maximum production or supply in any area, he may make subsidy payments in such amounts and manner and on such terms and conditions as he determines necessary to insure continued supplies. The President may, upon certification by the appropriate agency head that a particular strategic and critical material is likely to be in short supply in time of war or other national emergency, make provision for the development of substitutes for critical and strategic materials when, in the President's judgment, it will aid the national defense.

Voluntary Agreements. Under certain circumstances voluntary agreements to further the objectives of the Act may be made between firms and exempted from the provisions of the antitrust laws and the Federal Trade Commission Act. The agencies delegated functions under the Act may make recommendations for the approval of voluntary agreements to the Administrator of General Services who must consult with the Chairman of the Federal Trade Commission and secure approval of the Attorney General with respect to the proposed voluntary agreement.

The Defense Production Act has some potential for the purposes of the Task Force in that it contains incentives comparable to several that are under consideration. There are, however, several qualifications to its utility. First and foremost is the requirement that the action be justifiable on a "national defense" basis. Second the "under government contracts" requirement for loan guarantees and direct loans suggests that the production thereby sponsored is for government consumption (which would not be the case in a commercialization project). Third, one may question the wisdom of using the DPA (which was drafted with defense production in mind) for a generalized energy commercialization effort. Fourth and finally, the use of the loan and purchase provisions of the DPA could not facilitate implementation of a commercialization program unless funds were obtained from Congress through appropriations.

Federal Financing Bank Act of 1973 (12 U.S.C. §2281)

Although the Treasury Department's formal answer to the request for discussion of incentives to synthetic fuels commercialization made no reference to it, it appears that this Act may be of use in providing financing incentives.

It was originally viewed primarily as a mechanism for coordinating the borrowing activities of the Treasury and different Federal entities. and it serves an important function in this area. However, the Act also establishes a mechanism whereby funds generated by Treasury borrowings may be routed through the Bank to borrowers designated by a Federal agency pursuant to the agency's guarantee of the obligation. This procedure has been used to fund loans guaranteed by the Rural Electrification Administration and the Department of Housing and Urban Development. It has been suggested that this procedure circumvents the usual funding and appropriations process and constitutes "backdoor financing." Specifically, the Act establishes the Federal Financing Bank and authorizes it to commit to buy (and buy) any obligation which is issued, sold or guaranteeed by a Federal agency, 12 U.S.C. §2285(a). The Bank finances, such purchases either by its own borrowings or, more commonly, borrowing from the Treasury. Although not identified as a subsidy, the Bank's funding power might operate as such if, as indicated, it enabled approved private borrowers to borrow from the U.S. government at substantially less than private free market rates.

TABLE C1.

INCENTIVES AND PERTINENT LEGISLATION

INCENTIVE \ PERTINENT LEGISLATION/ SECTION NUMBER	Energy Reorganization Act	Non-Nuclear R&D Act	Defense Production Act	Critical Materials Stock Piling Act
A. Financial				
1. Price Supports (Direct Payments or Stockpiling)		7 (a) (4)	2093	
2. Direct Loans	107 (a)	7 (a) (5)	2092	
3. Guaranteed Loans			2091	
4. Guaranteed Procurement Contracts		7 (a) (4) and 6 (b) (3) (E)	2093	98b. (a)
5. Direct Grant (In Money or Kind)		8		
6. Convertible Grant				
7. Government Insurance				
8. RD&D Contracts	103 (2) and 107 (a)	4 (c) and 7 (a)		98b. (c) and 98f. (investigatory only)
9. Waiver of Patent Rights and Incentive Licensing		9		
10. Input Assurance		12	2071 and 2081	
B. Tax				
1. Credit				
2. Accelerated Depreciation				
3. Expensing of Construction Costs				
C. Organizational				
1. Government Special Purpose Corporation				
2. Government Sponsored Private Organizations	103 (5)			
3. Government-Private Industry Joint Ventures	107 (a)	7 (a) (1) and (b) and 8		
4. Private Industry Combinations (Antitrust Exemption)		10 says no exemption	2158 (b)	
5. Government Owned, Contractor Operated Facility		7 (a) (3)		

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