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UNITED STATES DEPARTMENT OF THE INTERIOR WATER AND POWER RESOURCES SERVICE

TECHNICAL REVIEW STAFF DIVISION OF DESIGN ENGINEERING AND RESEARCH CENTER

Solicitation for Negotiation of Contract Research

> Seismotectonic Study at Various Dams and Damsite Locations Near Phoenix, Arizona

UNIVERSITY OF UTAH RESEARCH INSTITUTE EARTH SCIENCE LAB.

- - -

April 1980



United States Department of the Interior WATER AND POWER RESOURCES SERVICE ENGINEERING AND RESEARCH CENTER

P O BOX 25007 BUILDING 67, DENVER FEDERAL CENTER DENVER, COLORADO 80225

April 10, 1980

Subject: Solicitation No. 85-V0116 for a Seismotectonic Study at Various Dams and Damsite Locations Near Phoenix, Arizona

Gentlemen:

Your firm is invited to submit an offer for the performance of a seismotectonic study in accordance with the statement of work contained in section E of this solicitation.

Should you decide to submit an offer, please submit seven copies of your technical proposal and seven copies of your cost proposal to the address shown below. All proposals must be received no later than 3:30 p.m. local time on May 7, 1980 (see section C concerning late proposals). A firm fixed price type of contract is anticipated, and offers should be made on that basis. The address for submitting proposals is:

> Water and Power Resources Service Mail Code D-810 Attn Shirley Combs PO Box 25007 Denver CO 80225

The physical location of the office is:

Water and Power Resources Service Building 67, Room 570 Denver Federal Center Denver CO 80225

NOTICE: ALL PROPOSALS (BOTH TECHNICAL AND COST) MAY BE DISCLOSED BY THE DEPARTMENT OF THE INTERIOR TO ANY PERSON UPON REQUEST PURSUANT TO THE FREEDOM OF INFORMATION ACT UNLESS THE DATA HAVE BEEN RESTRICTED IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED IN PARAGRAPH 4 OF SECTION C.

IN REPLY REFER TO: DATA SO RESTRICTED SHALL NOT BE DISCLOSED BY THE DEPARTMENT OF THE INTERIOR, PROVIDED, THAT SUCH DATA ARE DETERMINED BY THE DEPARTMENT OF THE INTERIOR TO BE EXEMPT FROM DISCLOSURE IN ACCORDANCE WITH THE EXEMPTION PROVISIONS OF THE FREEDOM OF INFORMATION ACT.

Very truly yours,

۶Ø Larry B. Harrell Contracting Officer

TOTAL SMALL BUSINES	S <u>SET-ASIDE</u>
NEGOTIATED CONTRACT	1. SOLICITATION NO.
STUDY	85-V0116 2. DATE OF CONTRACT
Req.: 1630-0-38	2. DALL OF CONTRACT
3. NAME AND ADDRESS OF CONTRACTOR*	
Principal Investigator:	
4. DEPARTMENT OR AGENCY AND ADDRESS*	
	lephone No.: (303) 234-3051
PO Box 25007 Denver CO 80225	
5. PROJECT TITLE AND LOCATION	
J. FROJECT TITLE AND EDGATION	
Seismotectonic Study for Theodore Roosev	elt, Stewart Mountain, Horse
Mesa, Mormon Flat, Bartlett, and Horsesh	oe Dams, and Orme, New Waddell,
and Buttes Damsites	
6. CONTRACT FOR (General description of ser	•
Study to determine the seismic potential	and characteristics of seismic
activity at existing and proposed dams a	t various udmisices and vicinities
	•
. CONTRACT AMOUNT (Express in words and fig	ures)
NEGOTIATION AUTHORITY	
FPR 1-3.211	
ADMINISTRATIVE, APPROPRIATION, AND ACCOUN	TING DATA
235-1360-0001-008-01-0-1 (two-thirds)	
092-0981-3344-092-01-0-0 (one-third)	
· ·	

*Include ZIP code, Area code, and Telephone Number

10. The United States of America (hereinafter called the Government) represented by the Contracting Officer executing this contract and the Contractor agree to perform this contract in strict accordance with the General Provisions and the documents identified as follows, all of which are made a part of this contract:

Solicitation No. 85-V0116

 The parties hereto have executed this contract as of the date recorded in Item 2

 SIGNATURES
 NAMES AND TITLES (Typed)

 11. CONTRACTOR
 A

 A
 B

 C
 D

 12. THE UNITED STATES OF AMERICA
 Larry B. Harrell

 Contracting Officer
 Contracting Officer

NOTICE

On November 6, 1979, the Secretary of the Interior approved changing the name of the former Bureau of Reclamation to the Water and Power Resources Service (WPRS), herein referred to as the "Service". R. Keith Higginson has been designated Commissioner of Water and Power Resources Service.

NOTICE OF SMALL BUSINESS SET-ASIDE

a. Restriction.-Proposals for services under this solicitation are solicited from small business concerns only and contract will be awarded only to one or more small business concerns. This action is based on a determination by the contracting officer, alone or in conjunction with a representative of the Small Business Administration, that it is in the interest of maintaining or mobilizing the Nation's full productive capacity, in the interest of war or national defense programs, or in the interest of assuring that a fair proportion of Government procurement is placed with small business concerns. Proposals received from firms which are not small business concerns shall be considered nonresponsive.

b. Definitions.-A "small business concern" is a concern, including its affiliates, which (a) is independently owned and operated, (b) is not dominant in the field of operation in which it is bidding on Government contracts, and (c) has average annual receipts for the preceding 3 fiscal years not exceeding 7-1/2 million dollars for construction contracts, 1 million dollars for architect-engineer contracts primarily architectural, and 7-1/2 million dollars for architectengineer contracts, primarily engineering. (For additional information, see Government Regulations of the Small Business Administration.) •

UNITED STATES DEPARTMENT OF THE INTERIOR WATER AND POWER RESOURCES SERVICE

REPRESENTATIONS BY OFFEROR

(To be completed, signed, and returned with proposal)

Date

This offeror represents: (Check appropriate boxes.)

(1) That he 🗌 is, 🗌 is not, a small business concern. If offeror is a small business concern and is not performing the services proposed, he also represents that all services to be furnished hereunder will, will not, be performed by a small business concern in the United States, its territories, its possessions, or the Commonwealth of Puerto Rico. For this purpose, a small business concern is a small business concern, including its affiliates, which (a) is independently owned and operated, (b) is not dominant in the field of operation in which it is bidding on Government contracts, and (c) has average annual receipts for the preceding three fiscal years not exceeding 7-1/2 million dollars for construction contracts, 1 million dollars for architect-engineer contracts primarily architectural, and 7-1/2 million dollars for architect-engineer contracts, primarily engineering. (For additional information, see Government Regulations of the Small Business Administration.);

(2) (a) That he has, has not, employed or retained any company or person (other than a full-time bona fide employee working solely for him) to solicit or secure this contract, and (b) that he has, has not, paid or agreed to pay any company or person (other than a full-time bona fide employee working solely for him) any fee, commission, percentage or brokerage fee, contingent upon or resulting from the award of this contract; and agrees to furnish information relating to (a) and (b) above as requested by the contracting officer; and

(3) That he operates as an individual, partnership, or corporation, incorporated in the State of

(4) That he has, has not, participated in a previous contract or subcontract subject to the Equal Opportunity Clause in the General Provisions of the solicitation identified above, the clause originally contained in Section 301 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114; that he has, has not, filed all required compliance reports; and that representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards.

(5) That (a) he has developed and has on file, has not developed and does not have on file, at each establishment, affirmative action programs as required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) he has not previously had contracts subject to the written affirmative action program requirement of the rules and regulations of the Secretary of Labor.

(6) Clean Air and Water Certification

(Applicable if the contract exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)) and is listed by EPA, or is not otherwise exempt.)

The offeror certifies as follows:

(a) Any facility to be utilized in the performance of this proposed contract

has has not

been listed on the Environmental Protection Agency List of Violating Facilities.

(b) He will promptly notify the contracting officer, prior to award, of the receipt of any communication from the Director, Office of Federal Activities, U.S. Environmental Protection Agency, indicating that any facility which he proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities.

(c) He will include substantially this certification, including this Paragraph (c), in every nonexempt subcontract.

(7) Minority Business Enterprise

He is, is not, a minority business enterprise. A minority business enterprise is defined as a "business, at least 50 percent

of which is owned by minority group members or, in case of publicly owned businesses, at least 51 percent of the stock of which is owned by minority group members." For the purpose of this definition, minority group members are Negroes, Spanish-speaking American persons, American-Orientals, American-Indians, American-Eskimos, and American-Aleuts.

(8) Parent Company and Employer Identification Number

Each offeror shall furnish the following information by filling in the appropriate blocks:

(a) Is the offeror owned or controlled by a parent company as described below? Yes No. (For the purpose of this offer, a parent company is defined as one which either owns or controls the activities and basic business policies of the offeror. To own another company means the parent company must own at least a majority (more than 50 percent) of the voting rights in that company. To control another company, such ownership is not required; if another company is able to formulate, determine, or veto basic business policy decisions of the offeror, such other company is considered the parent company of the offeror. This control may be exercised through the use of dominant minority voting rights, use of proxy voting, contractual arrangements, or otherwise.)

(b) If the answer to (a) above is "Yes," offeror shall insert in the space below the name and main office address of the parent company.

NAME OF PARENT COMPANY	MAIN OFFICE ADDRESS (No., Street, City, State, and ZIP Code)

(c) Offeror shall insert in the applicable space below, if he has no parent company, his own Employer's Identification Number (E.I. No.) (Federal Social Security Number used on Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941), or, if he has a parent company, the E.I. No. of his parent company.

EMPLOY IDENTIFICATION	*	PARENT	COMPANY	OFFEROR
			, 	

(9) WOMAN-OWNED BUSINESS

Concern is is not a woman-owned business.

A woman-owned business is a business which is, at least, 51 percent owned, controlled, and operated by a woman or women. Controlled is defined as exercising the power to make policy decisions. Operated is defined as actively involved in the day-to-day management.

For the purposes of this definition, businesses which are publicly owned, joint stock associations, and business trusts are exempted. Exempted businesses may voluntarily represent that they are, or are not, woman-owned if this information is available.

(10) PERCENT OF FOREIGN CONTENT

The offeror will represent (as an estimate), immediately after the award of a contract, the percent of the foreign content of the item or service being procured expressed as a percent of the contract award price (accuracy within plus or minus 5 percent is acceptable).

(11) IDENTIFICATION

Each offeror is required to fill in the information set forth below:

Duns Identification No. . This number is assigned by Dun & Bradstreet, Inc., and it is contained in that company's Data Universal Numbering System (DUNS). If the number is not known, it can be obtained from the local Dun & Bradstreet Office. If no number has been assigned by Dun & Bradstreet, insert the word "none".

(12) PRINCIPAL PLACE OF CONTRACT PERFORMANCE

Each offeror is required to write in the space provided below the full address of the principal place of contract performance.

Firm

Signature

Date

CERTIFICATE OF CURRENT COST OR PRICING DATA (FPR 1-3.807-4)

This is to certify that, to the best of my knowledge and belief, cost or pricing data¹ submitted in writing, specifically identified in writing if actual submission of the data is impracticable (see 1-3.807-3(h)(2)), to the contracting officer or his representative in support of ______2 are accurate, complete, and current as of ______3

> Firm Name Title

(date)	ł

(date of execution)

For definition of "cost or pricing data," see FPR 1-3.807-3. 2Describe the proposal, quotation, request for price adjusments, or other submission involved, giving appropriate identifying number (e.g., RFP No._____). 3This date shall be the date when the price negotiations were concluded and the contract price was agreed to. The responsibility of the contractor is not limited by the personal knowledge of the contractor's

negotiator if the contractor had information reasonably available
(see 1-3.807-5(a)) at the time of agreement, showing that the
negotiated price is not based on accurate, complete, and current data.
4This date should be as close as practicable to the date when the price
negotiations were concluded and the contract price was agreed upon.

f.

CERTIFICATE OF INDEPENDENT PRICE DETERMINATION

(a) By submission of this bid or proposal, each bidder or offeror certifies, and in the case of a joint bid or proposal each party thereto certifies as to its own organization, that in connection with this procurement:

(1) The prices in this bid or proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or offeror or with any competitor;

(2) Unless otherwise required by law, the prices which have been quoted in this bid or proposal have not been knowingly disclosed by the bidder or offeror and will not knowingly be disclosed by the bidder or offeror prior to opening, in the case of a bid, or prior to award, in the case of a proposal, directly or indirectly to any other bidder or offeror or to any competitor; and

(3) No attempt has been made or will be made by the bidder or offeror to induce any other person or firm to submit or not to submit a bid or proposal for the purpose of restricting competition.

(b) Each person signing this bid or proposal certifies that:

(1) He is the person in the bidder's or offeror's organization responsible within that organization for the decision as to the prices being bid or offered herein and that he has not participated, and will not participate, in any action contrary to (a)(3) above; or

(2) (i) He is not the person in the bidder's or offeror's organization responsible within that organization for the decision as to the prices being bid or offered herein but that he has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above, and as their agent does hereby so certify; and (ii) he has not participated and will not participate, in any action contrary to (a)(1) through (a)(3) above.

(c) This certification is not applicable to a foreign bidder or offeror submitting a bid or proposal for a contract which requires performance or delivery outside the United States, its possessions, and Puerto Rico. (d) A bid or proposal will not be considered for award where (a)(1), (a)(3), or (b) above has been deleted or modified. Where (a)(2) above has been deleted or modified, the bid or proposal will not be considered for award unless the bidder or offeror furnishes with the bid or proposal a signed statement which sets forth in detail the circumstances of the disclosure and the head of the agency, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

RFP 85-V-116

Seismotectonic Study at Various Dams and Damsite Locations Near Phoenix, Arizona

The following schedule is tentative and, at his option, the offeror may prepare and submit with his proposal a new schedule, or schedules, which will more adequately describe his proposed method of accomplishing the work required under this solicitation. However, any new schedules prepared by the offeror must be complete and must represent payment in full for performance of all services required below and by the detailed specifications attached thereto. The schedule or schedules under which payment will be made will be fixed prior to award of contract, as determined by agreement during contract negotiations.

No proposals will be considered which do not cover the performance of the services required within the schedule. The quantities stated in the schedule are estimated quantities, and no claim shall be made against the Government for excess or deficiency herein or in any alternative schedule or schedules proposed by the offeror. Payment at the prices agreed upon will be in full for the completed services and will cover materials, supplies, transportation, labor, tools, machinery, and all other expenditures directly related or incident to satisfactory compliance with the contract, unless otherwise specifically provided.

SCHEDULE A

Item

Articles or Services

Amount

SCHEDULE B

Payment for the services listed under the following schedule shall be in order only if the field exploration work is directed in writing by the Contracting Officer.

2. Services of a crew performing field en	exploration work at a
unit price of \$ per day	for an estimated
forty-five (45) calendar days for an	estimated total cost
of	

GÉNERAL PROVISIONS Negotiated Study (Fixed-Price)

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GENERAL PROVISIONS

NEGOTIATED STUDY (FIXED PRICE)

1. DEFINITIONS (FPR 1-7.302-1 & 1-7.102-1)

As used throughout this contract, the following terms shall have the meaning set forth below:

a. The term "head of the agency" or "Secretary" means the Secretary, the Under Secretary, any Assistant Secretary, or any other head or assistant head of the executive or military department or other Federal agency; and the term "his duly authorized representative" means any person or persons or board (other than the contracting officer) authorized to act for the head of the agency or the Secretary.

b. The term "contracting officer" means the person executing this contract on behalf of the Government, and any other officer or civilian employee who is a properly designated contracting officer; and the term includes, except as otherwise provided in this contract, the authorized representative of a contracting officer acting within the limits of his authority.

c. Except as otherwise provided in this contract, the term "subcontracts" includes purchase orders under this contract.

2. STANDARDS OF WORK (FPR 1-7.302-3)

The contractor agrees that the performance of work and services pursuant to the requirements of this contract shall conform to high professional standards.

3. INSPECTION (FPR 1-7.302-4(b))

The Government, through any authorized representatives, has the right at all reasonable times to inspect, or otherwise evaluate the work performed or being performed hereunder and the premises in which it is being performed, if any inspection, or evaluation is made by the Government on the premises of the contractor or a subcontractor, the contractor shall provide and shall require his subcontractors to provide all reasonable facilities and assistance for the safety and convenience of the Government representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

4. DISPUTES (FPR 1-7.302-11 & Fed. Reg. 3/7/79)

a. This contract is subject to the Contract Disputes Act of 1978 (41 U.S.C. 601, et seq.). If a dispute arises relating to the contract, the contractor may submit a claim to the contracting officer who shall issue a written decision on the dispute in the manner specified in OAR 1-314 (FPR 1-1.318).

b. "Claim" means:

(1) a written request submitted to the contracting officer:

(2) for payment of money, adjustment of contract terms, or other relief:

(3) which is in dispute or remains unresolved after a reasonable time for its review and disposition by the Government: and

(4) for which a contracting officer's decision is demanded.

c. In the case of disputed requests or amendments to such requests for payment exceeding \$50,000, or with any amendment causing the total request in dispute to exceed \$50,000, the contractor shall certify, at the time of submission as a claim, as follows:

I certify that the claim is made in good faith, that the supporting data are accurate and complete to the cest of my knowledge and belief: and that the amount reduested accurately reflects the contract adjustment for which the contractor believes the Government is liable.

(Contractor's Name)

(Title)

1

d. The Government shall pay the contractor interest:

(1) on the amount found due on claims submitted under this clause:

(2) at the rates fixed by the Secretary of the Treasury, under the Renegotiation Act. Public Law 92-41:

(3) from the date the contracting officer receives the claim, until the Government makes payment.

e. The decision of the contracting officer shall be final and conclusive and not subject to review by any forum, tribunal, or Government agency unless an appeal or action is timely commenced within the times specified by the Contract Disputes Act of 1978.

f. The contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal or action related to the contract, and comply with any decision of the contracting officer.

5. CHANGES (FPR 1-7.304-1)

> a. The contracting officer may at any time, by a written order, and without notice to the sureties, if any, make changes, within the general scope of this contract, in any one or more of the following:

- (i) Drawings, designs, or specifications:
- (ii) Method of shipment or packing; and

(iii) Place of inspection, delivery, or acceptance.

b. If any such change causes an increase or decrease in the estimated cost of, or the time required for performance of, this contract, or otherwise affects any other provisions of this contract, whether changed or not changed by any such order, an equitable adjustment shall be made:

(i) In the contract price or time of performance, or both, and

 (ii) In such other provisions of the contract as may be so affected, and the contract shall be modified in writing accordingly.

Any claim by the contractor for adjustment under this clause must be asserted within 30 days from the date of receipt by the contractor of the notification of change: Provided, however, That the contracting officer, if he decides that the facts justify such action, may receive and act upon any such claim asserted at any time prior to final payment under this contract. Failure to agree to any adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes." However, nothing in this clause shall excuse the contractor from proceeding with the contract as changed.

6. NOTICE REGARDING LATE DELIVERY (FPR 1-7.304-5 & 1-7.202-4)

In the event the contractor encounters difficulty in meeting performance requirements, or anticipates difficulty in complying with the contract delivery schedule or date, the contractor shall immediately notify the contracting officer thereof in writing, giving pertinent details, including the date by which it expects to complete performance or make delivery: Provided however. That this data shall be informational only in character and that receipt thereof shall not be construed as a waiver by the Government of any contract delivery schedule or date, or any rights or remedies provided by law or under this contract.

7. KEY PERSONNEL (Reciamation and FPR 1-7.404-6)

a. If identified as key personnel elsewhere in this contract, such personnel are considered to be essential to the work being performed hereunder. Prior to diverting any of the specified individuals to other programs, or making substitutions of personnel, the contractor shall notify the contracting officer reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of such changes on the contract effort. No changes in key personnel shall be made by the contractor without the written consent of the contracting officer: provided that the contracting officer may ratify in writing such changes and such ratification shall constitute the consent of the contracting officer required by this clause.

b. If key personnel are found to devote less effort than anticipated at the time of contract award, or are performing unsatisfactorily, the contracting officer may direct replacement of such personnel, contract modification, or contract termination as appropriate.

8. INDEMNITY AND REPORTING ACCIDENTS (Reclamation)

The contractor shall indemnify and hold the Government harmless for any and all losses, damages, or liability on account of personal injury, death, or property damage, or claim for personal injury, death, or property damage of any nature whatsoever and by whomsoever made, arising out of the activities of the contractor, his employees, subcontractors, or agents under the contract.

The contractor shall promotly investigate and maintain a complete record of all accidents resulting in personal injury, death, or property damage incident to performance of work under the contract. Loss of or damage to Government equipment or property in the custody of the contractor shall be immediately reported to the contracting officer together with full details relating to the incident.

9. DEFAULT (FPR 1-7.302-9 & 1-8.710)

(The following clause is applicable to other than educational or nonprofit institutions.)

a. The Government may, subject to the provisions of subparagraphic, of this clause, by written notice of default to the contractor, terminate the whole or any part of this contract in any one of the following circumstances:

(1) If the contractor fails to perform the work called for by this contract within the time(s) specified herein or any extension thereof; or

(2) If the contractor fails to derform any of the other provisions of this contract, or so

fails to prosecute the work as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of 10 days (or such longer period as the contracting officer may authorize in writing) after receipt of notice from the contracting officer specifying such failure.

5. In the event the Government terminates this contract in whole or in cart as provided in supparagraph a. of this clause, the Government may produre, upon such terms and in such manner as the contracting officer may deem appropriate, work similar to the work so terminated and the contractor shall be liable to the Government for any excess costs for such similar work: Provided, That the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

c. Except with respect to defaults of subcontractors, the contractor shall not be liable for any excess costs if the failure to perform the contract arises out of causes beyond the control and without the fault or negligence of the contractor. Such causes, may include, out are not restricted to, acts of God or of the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics. quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without the fault or negligence of the contractor. If the failure to derform is caused by the default of a subcontractor, and if such default arises out of causes beyond the control of both the contractor and subcontractor, and without the fault or negligence of eitner of them, the contractor shall not be liable for any excess costs for failure to perform unless the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the contractor to meet the required delivery schedule or other performance requirements.

a. If this contract is terminated as provided in subparagraphia, of this clause, the Government, in addition to any other rights provided in this clause, may require the

contractor to transfer title and deliver to the Government, in the manner and to the extent directed by the contracting officer, any of the completed or partially completed work not theretofore delivered to, and accepted by, the Government and any other property, including contract rights, specifically produced or specifically acquired for the performance of such part of this contract as has been terminated; and the contractor shall, upon the direction of the contracting officer, protect and preserve property in the possession of the contractor in which the Government has an interest. The Government shall pay to the contractor the contract price, if separately stated, for completed work accepted by the Government and the amount agreed upon by the contractor and the contracting officer for (1) completed work for which no separate price is stated. (2) partially completed work. (3) other property described above which is accepted by the Government, and (4) the protection and preservation of property. Failure to agree shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes." The Government may withhold from amounts otherwise due the contractor for such completed supplies or manufacturing materials such sum as the contracting officer determines to be necessary to protect the Government against loss because of outstanding liens or claims of former lien holders.

e. If, after notice of termination of this contract under the provisions of this clause. it is determined for any reason that the contractor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the Government, be the same as if the notice of termination had been issued pursuant to such clause. If after notice of termination of this contract under the provisions of this clause, it is determined for any reason that the contractor was not in default under the provisions of this clause, and if this contract does not contain a clause providing for termination for convenience of the Government, the contract shall be equitably acjusted to compensate for such termination

and the contract modified accordingly; failure to agree to any such adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes."

f. The right and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

g. As used in subparagraphic, of this clause, the terms 'subcontractor' and "subcontractors" means subcontractor(s) at any tier.

10. TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FPR 1-7.302-10 & 1-8.701)

a. The performance of work under this contract may be terminated by the Government in accordance with this clause in whole, or from time to time in part, whenever the contracting officer shall determine that such termination is in the best interest of the Government. Any such termination shall be effected by delivery to the contractor of a Notice of Termination specifying the extent to which performance of work under the contract is terminated, and the date upon which such termination becomes effective.

b. After receipt of a Notice of Termination, and except as otherwise directed by the contracting officer, the contractor shail:

(1) Stop work under the contract on the date and to the extent specified in the Notice of Termination:

(2) Place no further orders or subcontracts for materials, services, or facilities, except as may be necessary for completion of such portion of the work under the contract as is not terminated:

(3) Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination:

(4) Assign to the Government, in the manner, at the times, and to the extent

directed by the contracting officer, all of the right, title, and interest of the contractor under the orders and subcontracts so terminated, in which case the Government shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts:

(5) Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the contracting officer, to the extent he may require, which approval or ratification shall be final for all the purposes of this clause:

(6) Transfer title to the Government and deliver in the manner, at the times, and to the extent, if any, directed by the contracting officer, (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the work terminated by the Notice of Termination, and (ii) the completed or partially completed plans, drawings, information and other property which, if the contract had been completed, would have been required to be furnished to the Government;

(7) Use his best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorized by the contracting officer, any property of the types referred to in (6) above: Provided. however. That the contractor (i) shall not be required to extend credit to any curchaser. and (ii) may acquire any such property under the conditions prescribed by and at a price or prices approved by the contracting officer: And provided further, That the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the Government to the contractor under this contract or shall otherwise be credited to the crice or cost of the work covered by this contract or cald in such other manner asthe contracting officer may direct

(8) Complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and

(9) Take such action as may be necessary, or as the contracting officer may direct, for the protection and preservation of the property related to this contract which is in the possession of the contractor and in which the Government has or may acquire an interest.

At any time after expiration of the plant clearance period, as defined in subpart 1-8.1 of the Federal Procurement Regulations (41 CFR 1-8.1), as the definition may be amended from time to time, the contractor may submit to the contracting officer a list. certified as to quantity and quality, of any or all items of termination inventory not previously disposed of, exclusive of items the disposition of which has been directed or authorized by the contracting officer, and may request the Government to remove such items or enter into a storage agreement covering them. Not later than 15 days thereafter, the Government will accept title to such items and remove them or enter into a storage agreement covering the same: Provided. That the list submitted shall be subject to verification by the contracting officer upon removal of the items or, if the items are stored. within 45 days from the date of submission of the list, and any necessary adjustment to correct the list as submitted shall be made prior to final settlement.

c. After receipt of a Notice of Termination. the contractor shall submit to the contracting officer his termination claim, in the form and with certification prescribed by the contracting officer. Such claims shall be submitted promotly but in no event later than I year from the effective date of termination. unless one or more extensions in writing are granted by the contracting officer upon request of the contractor made in writing within such 1-year period or authorized extension thereof. However, if the contracting officer determines that the facts justify such action, he may receive and act upon any such termination claim at any time after such 1-year ceriod or any extension thereof. Upon failure of the contractor to submit his termination claim within the time allowed, the contracting officer may, subject to any review required by the contracting agency's procedures in effect as of the date of execution of this contract, determine, on the basis of information available to him, the amount, if any, due to the contractor by reason of the termination and shall thereupon pay to the contractor the amount so determined.

d. Subject to the provisions of subparagraph c., and subject to any review required by the contracting agency's procedures in effect as of the date of execution of this contract, the contractor and the contracting officer may adree upon the whole or any part of the amount or amounts to be paid to the contractor by reason of the total or partial termination of work pursuant to this clause. which amount or amounts may include a reasonable allowance for profit on work done: Provided. That such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not terminated. The contract shall be amended accordingly, and the contractor shall be baid the agreed amount. Nothing in subparagraph e, of this clause, prescribing the amount to be baid to the contractor in the event of failure of the contractor and the contracting officer to agree upon the whole amount to be paid to the contractor by reason of the termination of work pursuant to this clause, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the contractor pursuant to this supparagraph d.

e. In the event of the failure of the contractor and the contracting officer to agree as provided in subparagraph d. upon the whole amount to be paid to the contractor by reason of the termination of work pursuant to this clause, the contracting officer shall, subject to any review required by the contracting agency's procedures in effect as of the date of execution of this contract, determine, on the basis of information available to him, the amount, if any, due to the contractor by reason of the termination and shall pay to the contractor the amounts determined as follows: (1) For completed supplies accepted by the Government (or sold or acquired as provided in supparagraph b.(7) above) and not theretofore paid for, a sum equivalent to the aggregate price for such supplies computed in accordance with the price or prices specified in the contract, appropriately adjusted for any saving of freight or other charges;

(2) The total of-

 (i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but exclusive of any costs attributable to supplies paid or to be paid for under supparagraph e.(1) hereof:

(ii) The cost of settling and paying claims arising out of the termination of work under subcontracts or orders, as provided in subparagraph b.(5) above, which are properly chargeable to the terminated portion of the contract (exclusive of amounts paid or payable on account of subplies or materials delivered or services furnished by subcontractors or vendors prior to the effective date of the Notice of Termination, which amounts shall be included in the costs payable under (i) above); and

(iii) A sum, as profition (i), above, determined by the contracting officer pursuant to § 1-8.303 of the Federai Procurement Regulations (41 CFR 1-8.303), in effect as of the date of execution of this contract, to be fair and reasonable: Provided, however, That if it appears that the contractor would have sustained a loss on the entire contract had it been completed, no profit shall be included or allowed under this subdivision (iii) and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and

(3) The reasonable costs of settlement, including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the contract and for the termination and settlement of subcontracts thereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of property allocable to this contract.

The total sum to be baid to the contractor under (1) and (2) of this subparagraph e. shall not exceed the total contract orice as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not terminated. Except for normal spoilage and except to the extent that the Government shall have otherwise expressiv assumed the risk of loss, there shall be excluded from the amounts payable to the contractor as provided in e.(1) and (2)(i) above. the fair value, as determined by the contracting officer, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government, or to a buyer pursuant to subparagraph b.(7).

f. Costs claimed, agreed to, or determined pursuant to subparagraphs c., d., and e. of this clause shall be in accordance with the applicable contract cost principles and procedures in part 1-15 of the Federal Procurement Regulations (41 CFR 1-15) in effect on the date of this contract.

g. The contractor shall have the right to appeal, under the clause of this contract entitled "Disputes" from any determination made by the contracting officer under subparagraph c. or e. above, except that, if the contractor has failed to submit his claim within the time provided in subparagraph c, above and has failed to request extension of such time, he shall have no such right of appeal. In any case where the contracting officer has made a determination of the amount due under subparagraphic, or el above, the Government snall pay to the contractor the following: (1) if there is no right of appeal hereunder or if no timely appeal has been taken, the amount so determined by the contracting officer: or (2) if an appeal has been taken, the amount finally determined on such abdeal.

h. In arriving at the amount due the contractor under this clause there shall be deducted (1) all unliquidated advance or other payments on account theretofore made to the contractor, applicable to the terminated portion of this contract: (2) any claim which the Government may have against the contractor in connection with this contract: and (3) the agreed price for, or the proceeds of sale of, any materials, supplies, or other things acquired by the contractor or sold, pursuant to the provisions of this clause, and not otherwise recovered by or credited to the Government.

i. If the termination hereunder be partial, prior to the settlement of the terminated portion of this contract, the contractor may file with the contracting officer a request in writing for an equitable adjustment of the price or prices specified in the contract relating to the continued portion of the contract (the portion not terminated by the Notice of Termination), and such equitable adjustment as may be agreed upon shall be made in such price or prices.

 The Government may from time to time. under such terms and conditions as it may prescribe, make partial payments and cayments on account against costs incurred by the contractor in connection with the terminated portion of this contract whenever. in the opinion of the contracting officer, the aggregate of such payments shall be within the amount to which the contractor will be entitled hereunder: If the total of such payments is in excess of the amount finally agreed or determined to be due under this clause, such excess shall be payable by the contractor to the Government upon demand. todether with interest computed at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41 [50 U.S.C. App. 1215(b)(2)] for the Renegotiation Board, for the deriod from the date such excess dayment is received by the contractor to the date on which such excess is redaid to the Government: Provided, nowever, That no interest shall be charged with respect to any such excess payment attributable to a reduction in the contractor's claim by reason of retention or other disposition of termination inventory until 10 days after the date of such retention or disposition, or such later date as

determined by the contracting officer by reason of the circumstances.

k. Unless otherwise provided for in this contract, or by applicable statute, the contractor, from the effective date of termination and for a period of 3 years after final settlement under this contract, shall preserve and make available to the Government at all reasonable times at the office of the contractor but without direct charge to the Government, all his books. records, documents, and other evidence bearing on the costs and expenses of the contractor under this contract and relating to the work terminated hereunder, or, to the extent approved by the contracting officer. photographs, microphotographs, or other authentic reproductions thereof.

11. RIGHTS IN DATA (Reciamation)

a. The term "Data" as used herein means recorded information regardless of form or characteristic, of a scientific or technical nature, or of an artistically creative nature. such as books and other writings, technical data. computer programs and software, sound recordings, motion pictures, sculptures. paintings, or other pictorial works or reproductions, drawings, or other graphic representations, and works of the performing arts, and works of similar nature (whether or not copyrighted), which are specified to be delivered under this contract. The term includes data such as management studies and data produced under support services contracts but does not include financial reports, cost analyses, and other information incidental to contract administration.

b. All data produced or composed in the course of or under this contract shall be the sole croperty of the Government. Except with the orior written permission of the contracting officer, the contractor agrees and warrants that its employees and such others who are likely to author contract data have agreed in writing not to assert any rights at law or in equity or establish any claim to a statutory copyright in such data. The contractor shall not publish or reproduce such data in whole or in part or in any manner or form, or authorize others to do so, without the written consent of the contracting officer, until such time as the Government may have released such data to the public.

c. The contractor hereby grants to or will obtain for the Government a royalty-free. nonexclusive, and irrevocable license throughout the world (1) to publish, exhibit, translate, reproduce, deliver, perform, use, or otherwise copy, and dispose of, in any manner, any and all data which are not produced or composed in the performance of this contract but which are incorporated in the work furnished under this contract; and (2) to authorize others to do as provided in (c)(1) above.

d. The contractor shall indemnify and save and hold harmless the Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses (1) for violation of proprietary rights, copyrights, or rights of privacy, ansing out of the public translation, reproduction, delivery, performance, use, or disposition of any data furnished under this contract; or (2) based upon any libelous, defamatory, or other unlawful matter contained in such data.

e. Nothing contained in this clause shall imply a license to the Government under any patent, or be constructed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

f. Subparagraphs d. and e. above are not applicable to material given to the contractor by the Government and incorporated in data furnished under the contract; provided that problems relative to the material are identified by the contractor at the time the material is given to him.

g. The contractor may not publish, translate, or release data first produced in the performance of this contract, in whole or in part, in any manner or form, or authorize others to do so, during performance of work under this contract, unless prior written approval is given by the contracting officer. Normally such written approval may be given only after submission of technical papers and reports in draft form by the contractor and written acceptance of technical capers and teports by the contracting officer.

n. Notwithstanding subparagraph g. above. if the contractor is an educational institution, the institution, an employee of, or a student at the institution, may at any time publish a document based on work performed, and data developed under this contract: provided that (1) the contractor submits an advance copy of the document to the contracting officer at least 60 days prior to the planned publication date, and (2) the document, solely in the judament of the contracting officer, does not contain information detrimental to the interests of the Government. If the contracting officer determines that h.(2) above is applicable, he shall have the right to refuse approval for publication. Specific written approval must be given by the contracting officer before a document may be published.

i. Any approved publication or information released by the contractor must state that the data utilized were developed during performance of work under this contract, and that the Government does not endorse the publication or release. The document may not refer to a commercial product, commercial firm, or a trade name, in such a way as to imply endorsement or approval by the Government. If data are used in a thesis for a graduate degree, the author must furnish to the contracting officer, free of charge, 50 copies (or fewer codies if agreed to by the contracting officer) of the thesis.

i. All data furnished to the Government under this contract which the contractor considers to be proprietary shall be so identified by an appropriate written legend on the document. recording, drawing, computer printout, etc., involved. Any such data not marked with a proprietary legend will be considered to be nonproprietary data subject to subparagraphs a. through e., and g. through i. above. Proprietary information will be retained in confidential status by the Government: provided that such data (1) are not generally known or available from other sources without obligation concerning their confidentiality, (2) have not been made available by the owner, and (3) are not already available to the Government without obligation concerning its confidentiality. The Government shall have

the right to remove, cancel, correct, or ignore any marking not authorized by the terms on any data furnished hereunder, if upon delivery of the data the propriety of such marking is not substantiated by the contractor, in writing, to the satisfaction of the contracting officer. The contractor shall be notified of any such action contemplated under this subparagraph j., and which will be taken if the contractor fails to respond thereto so as to substantiate the propriety of the markings within 60 days.

12. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (FPR 1-7.302-22 & 1-7.103-4)

The provisions of this clause shall be applicable only if the amount of this contract exceeds \$10,000.

a. The contractor shall report to the contracting officer, promotly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the contractor has knowledge.

b. In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed hereunder; the contractor shall furnish to the Government, when requested by the contracting officer, all evidence and information in possession of the contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the contractor has agreed to indemnify the Government.

- 13. PATENTS RIGHTS (FPR 1-7.302-23 & 1-9.107-5(a))
 - a. Definitions.-

(1) "Subject Invention" means any invention or discovery of the contractor conceived or first actually reduced to practice in the course of or under this contract, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plant, which is or may be batentable under the Patent Laws of the United States of America or any foreign country.

(2) "Contract" means any contract. agreement, grant, or other arrangement, or subcontract entered into with or for the benefit of the Government where a purpose of the contract is the conduct of experimental, developmental, or research work.

(3) "States and domestic municipal governments" means the States of the the United States, the District of Columpia, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Trust Territory of the Pacific Islands, and any political subdivision and agencies thereof.

(4) "Government agency" includes an executive department, independent commission, board, office, agency, administration, authority, Government corporation, or other Government establishment of the executive branch of the Government of the United States of America.

(5) "To the point of practical application" means to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.

b. Allocation of orincipal rights.-

(1) Assignment to the Government,-The contractor agrees to assign to the Government the entire right, title, and interest therein throughout the world except to the extent that greater rights are retained by the contractor under paragraphs b.(2) and d. of this clause.

(2) Greater rights determinations.—The contractor, or the employee-inventor with authorization of the contractor, may retain greater rights than the nonexclusive license provided in paragraph d. of this clause in accordance with the procedure and criteria

of 41 CFR 1-9,109-6; A request for a determination of whether the contractor or the employee-inventor is entitled to retain such areater rights must be submitted to the contracting officer at the time of first disclosure of the invention pursuant to paradraph e.(2)(i) of this clause, or not later than 3 months thereafter or such longer period as may be authorized by the contracting officer for good cause shown in writing by the contractor. The information to be submitted for a greater rights determination is specified in 41 CFR 1-9.109-6. Each determination of dreater rights under this contract normally shall be subject to paragraph c, of this clause and to the reservations and conditions deemed to be appropriate by the agency.

c. Minimum rights acquired by the Government.-With respect to each Subject Invention to which the contractor retains principal or exclusive rights, the contractor:

(1) Hereby grants to the Government a nonexclusive, nontransferable, paid-up license to make, use, and sell each Subject Invention throughout the world by or on behalf of the Government of the United States (including any Government agency) and States and domestic municipal governments;

(2) Agrees to grant to responsible applicants, upon request of the Government, a license on terms that are reasonable under the circumstances:

(i) Unless the contractor, his licensee, or his assignee demonstrates to the Government that effective steps have been taken within 3 years after a patent issues on such invention to bring the invention to the point of practical application, or that the invention has been made available for licensing royalty-free or on terms that are reasonable in the circumstances, or can show cause why the principal or exclusive rights should be retained for a further period of time; or

 (ii) To the extent that the invention is required for public use by governmental regulations or as may be necessary to fulfill public health, safety or welfare needs, or for other public purposes stipulated in this contract;

(3) Shall submit written reports at reasonable intervals upon request of the Government during the term of the patent on the Subject Invention regarding:

 (i) The commercial use that is being made or is intended to be made of the invention; and

 (ii) The steps taken by the contractor or his transferee to bring the invention to the point of practical application or to make the invention available for licensing;

(4) Agrees to refund any amounts received as royaity charges on any Subject Invention in procurements for or on behalf of the Government and to provide for that refund in any instrument transferring rights to any party in the invention; and

(5) Agrees to provide for the Government's paid-up license pursuant to paragraph c.(1) of this clause in any instrument transferring rights in a Subject Invention and to provide for the granting of licenses as required by (2) of this clause. and for the reporting of utilization information as required by paragraph c.(3) of this clause whenever the instrument transfers principal or exclusive rights in any Subject Invention.

Nothing contained in this paragraph c. shall be deemed to grant to the Government any rights with respect to any invention other than a Subject Invention.

d. Minimum rights to the contractor.-

(1) The contractor reserves a revocable, nonexclusive, royalty-free license in each patent application filed in any country on a Subject Invention and any resulting patent in which the Government acquires title. The license shall extend to the contractor's domestic subsidiaries and affiliates, if any, within the corporate structure of which the contractor is a part and shall include the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. The license shall be transferable only with approval of the agency except when transferred to the successor of that part of the contractor's business to which the invention pertains.

(2) The contractor's nonexclusive domestic license retained oursuant to paragraph d.(1) of this clause may be revoked or modified by the agency to the extent necessary to achieve expeditious oractical application of the Subject Invention under 41 CFR 101-4,103-3 oursuant to an application for exclusive license submitted in accordance with 41 CFR 101-4.104-3. This license shall not be revoked in that field of use and/or the deographical areas in which the contractor has brought the invention to the point of practical application and continues to make the benefits of the invention reasonably accessible to the public. The contractor's nonexclusive license in any foreign country reserved oursuant to paragraph d.(1) of this clause may be revoked or modified at the discretion of the agency to the extent the contractor or his domestic subsidiaries or affiliates have failed to achieve the practical application of the invention in that foreign country.

(3) Before modification or revocation of the license, oursuant to paragraph d.(2) of this clause, the agency shall furnish the contractor a written notice of its intention to modify or revoke the license, and the contractor shall be allowed 30 days (or such longer period as may be authorized by the agency for good cause shown in writing by the contractor) after the notice to show cause why the license should not be modified or revoked. The contractor shall have the right to abeeal, in accordance with procedures prescribed by the agency, any decision concerning the modification or revocation of his license.

Invention, identification, disclosures, and reports.

(1) The contractor shall establish and maintain active and effective procedures to

ensure that Subject Inventions are promotiv identified and timely disclosed. These procedures shall include the maintenance of laboratory notebooks or equivalent records and any other records that are reasonably necessary to document the conception and/or the first actual reduction to practice of Subject Inventions, and records which show that the procedures for identifying and disclosing the inventions are followed. Upon request, the contractor shall furnish the contracting officer a description of these procedures so that he may evaluate and determine their affectiveness.

(2) The contractor shall furnish the contracting officer:

(i) A complete technical disclosure for each Subject Invention within 6 months after conception or first actual reduction to practice whichever occurs first in the course of or under the contract, but in any event prior to any on sale, public use. or publication of such invention known to the contractor. The disclosure shall identify the contract and inventor and snall be sufficiently complete in technical detail and appropriately illustrated by sketch or diadram to convey to one skilled in the art to which the invention pertains a clear understanding of the nature, purpose, operation, and, to the extent known, the physical, chemical, biological, or electrical characteristics of the invention:

(ii) Interim reports ¹ at least every 12 months from the date of the contract listing Subject Inventions for that period and certifying that:

(A) The contractor's procedures for identifying and disclosing Subject inventions as required by this paragraph e. have been followed throughout the reporting period; and

(B) All Subject inventions have been disclosed or that there are no such inventions; and

(iii) A final report! within 3 months after completion of the contract work. listing all Subject Inventions or certifying that there were no such inventions.

(3) The contractor shall obtain patent agreements to effectuate the provisions of this clause from all persons in his employ who perform any part of the work under this contract except nontechnical personnel, such as cierical employees and manual laborers.

(4) The contractor agrees that the Government may duplicate and disclose Subject Invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause.

f. Forfeiture of rights in unreported Subject Inventions.-

(1) The contractor shall forfeit to the Government all rights in any Subject Invention which he fails to disclose to the contracting officer within 6 months after the time he:

(i) Files or causes to be filed a United States or foreign application thereon; or

(ii) Submits the final report required by paragraph e.(2)(iii) of this clause, whichever is later.

(2) However, the contractor shall not forfeit rights in a Subject Invention if, within the time specified in (1)(i) or (1)(ii) of this paragraph f., the contractor:

(i) Prepared a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract: or

(ii) Contending that the invention is not a Subject Invention, he nevertheless discloses the invention and all facts pertinent to his contention to the contracting officer; or

(iii) Establishes that the failure to disclose did not result from his fault or negligence.

Agency may specify form.

(3) Pending written assignment of the patent applications and patents on a Subject Invention determined by the contracting officer to be forfeited (such determination to be a final decision under the Disputes Clause), the contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph f, shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to Subject Inventions.

g. Examination of records relating to inventions.-

(1) The contracting officer or his authorized representative until the expiration of 3 years after final payment under this contract shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data of the contractor which the contracting officer reasonably deems pertinent to the discovery or identification of Subject Inventions or to determine compliance with the requirements of this clause.

(2) The contracting officer shall have the right to review all books (including laboratory notebooks), records, and documents of the contractor relating to the conception or first actual reduction to gractice of inventions in the same field of technology as the work under this contract to determine whether any such inventions are Subject Inventions if the contractor refuses or fails to:

(i) Establish the procedures of caragraph e.(1) of this clause; or

(ii) Maintain and follow such arocedures: or

(iii) Correct or eliminate any material deficiency in the procedures within 30 days after the contracting officer notifies the contractor of such a deficiency.

n. Witholding of payment (not applicable to subcontracts).-

(1) Any time before final payment of the amount of this contract, the contracting officer may, if he deems such action warranted, withhold payment until a reserve not exceeding \$50,000 or 5 percent of the amount of this contract, whichever is less, shall have been set aside if in his opinion the contractor fails to:

(i) Establish, maintain, and follow effective procedures for identifying and disclosing Subject Inventions pursuant to paragraph e.(1) of this clause: or

(ii) Disclose any Subject Invention pursuant to paragraph e.(2)(i) of this clause; or

(iii) - Deliver acceptable interim reports pursuant to paragraph e.(2)(ii) of this clause: or

(iv) Provide the information regarding subcontracts oursuant to paragraph (.(5) of this clause.

The reserve or balance shall be withheid until the contracting officer has determined that the contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.

(2) Final payment under this contract shall not be made before the contractor delivers to the contracting officer all disclosures of Subject Inventions required by paragraph e.(2)(i) of this clause, and an acceptable final report pursuant to e.(2)(iii) of this clause.

(3) The contracting officer may, in his discretion, decrease or increase the sums witheld up to the maximum authorized above. If the contractor is a noncrofit organization the maximum amount that may be withheld under this baragraon shall not exceed \$50,000 or 1 bercent of the amount of this contract whichever is less. No amount shall be withheld under this baragraon while the amount specified by this paragraon is being withheld under other provisions of the contract. The withholding of any amount or subsequent bayment thereof shall not be construed as

a waiver of any rights accruing to the Government under this contract.

E Supcontracts.-

(1) For the purpose of this paragraph the term "Contractor" means the party awarding a subcontract and the term "Subcontractor" means the party being awarded a subcontract, regardless of tier.

(2) Unless otherwise authorized or directed by the Government contracting officer, the contractor shall include this Patent Rights clause modified to identify the parties in any subcontract hereunder if a purpose of the subcontract is the conduct of experimental, developmental, or research work. In the event of refusal by a subcontractor to accept this clause, or if in the opinion of the contractor this clause is inconsistent with the policy set forth in 41 CFR 1-9.107-3, the contractor.

(i) Shall promptly submit a written notice to the Government contracting officer setting forth reasons for the subcontractor's refusal and other pertinent information which may expedite disposition of the matter, and

(ii) Shall not proceed with the subcontract without the written authorization of the Government contracting officer.

(3) The contractor shall not, in any subcontract or by using a subcontract as consideration therefor, acquire any rights in his subcontractor's Subject Invention for nis own use (as distinguished from such rights as may be required solely to fulfill his contract obligations to the Government in the performance of this contract).

(4) All invention disclosures, reports, instruments, and other information required to be furnished by the subcontractor to the Government contracting officer under the provisions of a Patent Rights clause in any subcontract hereunder may, in the discretion of the Government contracting officer, be furnished to the contractor for transmission to the Government contracting officer. (5) The contractor shall promotly notify the Government contracting officer in writing upon the award of any subcontract containing a Patent Rights clause by identifying the subcontractor, the work to be performed under the subcontract, and the gates of award and estimated completion. Upon request of the Government contracting officer, the contractor shall furnish a copy of the subcontract. If there are no subcontracts containing Patent Rights Clauses, a negative report shall be included in the final report submitted pursuant to paragraph e.(2)(iii) of this clause.

(6) The contractor shall identify all Subject Inventions of the subcontractor of which he acquires knowledge in the performance of this contract and shall notify the Government contracting officer promotly upon the identification of the inventions.

(7) It is understood that the Government is a third party beneficiary of any subcontract clause granting rights to the Government in Subject Inventions, and the contractor nereby assigns to the Government all rights that he would have to enforce the subcontractor's obligations for the benefit of the Government with respect to Subject Inventions. The contractor shall not be obligated to enforce the agreements of any subcontractor hereunder relating to the obligations of the subcontractor to the Government in regard to Subject Inventions.

14. ASSIGNMENT OF CLAIMS (FPR 1-7.302-5 & 1-30.703)

a. Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), if this contract provides for payments aggregating \$1,000 or more, claims for moneys due or to become due the contractor from the Government under this contract may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Any such assignment or reassignment shall cover all amounts bayable under this contract and not already baid, and shall not be made to more than one party. except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties. participating in such financing. Unless otherwise provided in this contract, payments to assignee of any moneys due or to become due under this contract shall not, to the extent provided in said Act, as amended, be subject to reduction or setoff. (The preceding sentence applies only if this contract is made in time of war or national emergency as defined in said Act and is with the Department of Defense, the General Services Administration, the Energy Research and Development Administration, the National Aeronautics and Space Administration, the Federal Aviation Administration, or any other department or agency of the United States designated by the President pursuant to clause 4 of the proviso of section 1 of the Assignment of Claims Act of 1940, as amended by the Act of May 15, 1951, 65 Stat. 41.)

b. In no event shall copies of this contract or of any plans, specifications, or other similar documents relating to work under this contract, if marked "Top Secret." "Secret." or "Confidential." be furnished to any assignee of any claim arising under this contract or to any other person not entitled to receive the same. However, a copy of any part or all of this contract so marked may be furnished, or any information contained therein may be disclosed, to such assignee upon the prior written authorization of the contracting officer.

15. EXAMINATION OF RECORDS BY COMPTROLLER GENERAL (FPR 1-7.302-6 & 1-7.103-3)

a. This clause is applicable if the amount of this contract exceeds \$10,000 and was entered into by means of negotiation, including small business restricted advertising, but is not applicable if this contract was entered into by means of formal advertising.

c. The contractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under this contract or such lesser time specified in either appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of the contractor involving transactions related to this contract.

c. The contractor further agrees to include in all his succontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under the subcontract or such lesser time specified in either appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations part 1-20, as appropriate, have access to and the right to examine any directly pertinent books. documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) ourchase orders not exceeding \$10,000 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

d. The periods of access and examination described in b. and c., above, for records which relate to (1) appeals under the "Disputes" clause of this contract, (2) litigation or the settlement of claims arising out of the performance of this contract, or (3) costs and expenses of this contract as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.

16. INTEREST

(FPR 1-7.303-26 & 1-7.203-13)

Notwithstanding any other provision of this contract, unless baid within 30 days, all amounts that become payable by the contractor to the Government under this contract (net of any abbilicable tax credit under the internal Revenue Code) shall bear interest at the rate determined by the Secretary of the Treasury pursuant to Public Law 92-41, 85 Stat. 97. Amounts shall be due upon the earliest of (a) the date fixed oursuant to this contract: (b) the date of the first written demand for payment, consistent with this contract, including demand consequent upon default termination: (c) the date of transmittal by the Government to the contractor of a proposed supplemental agreement to confirm completed negotiations fixing the amount: or (d) if this contract provides for revision of prices, the date of written notice to the contractor stating the amount of refund payable in connection with a pricing proposal or in connection with a negotiated origing agreement not confirmed by contract supplement.

17. PAYMENTS (FPR 1-7.302-2)

The contractor shall be paid, upon submission of proper invoices or vouchers, the prices stipulated herein for work delivered or rendered and accepted, less deductions, if any, as herein provided. Unless otherwise specified, payment will be made upon acceptance of any portion of the work delivered or rendered for which a price is separately stated in the contract.

18. PROGRESS PAYMENTS (FPR I-7.303-23 & 1-30.510-1(a) (Total Costs))

Progress payments shall be made to the contractor as work progresses, from time to time upon request in amounts approved by the contracting officer upon the following terms and conditions:

a. Computation of amounts .-

(1) Unless a smaller amount is requested, each progress payment shall be:

(i) 80 percent of the amount of the contractor's total costs (except that this percentage shall be 85 percent if the contractor is a small business concern) incurred under this contract, except as provided herein with respect to costs of pension contributions, plus

(ii) the amount of progress payments to subcontractors as provided in j. below: all less the sum of previous progress payments. With respect to costs of

pension contributions, when pension contributions are paid by the contractorto the retirement fund less frequently. than quarterly, accruais of the costs of these pension contributions shall be excluded from the contractor's total costs for progress payment purposes until such costs are paid. If pension contributions are paid on a quarteriv or more frequent basis, accruais of the costs of these pension contributions may be included in the contractor's total costs for progress payment purposes: Provided. That the pension contributions are paid to the retirement fund within 30 days after the close of the period covered by the payment. If payments are not made to the fund within such 30-day period, pension contributions costs shall be excluded from the contractor's total costs for progress payment purposes until payment therefor has been made.

(2) The contractor's total costs a.(1)(i) shall be reasonable, allocable to this contract, and consistent with sound and generally accepted accounting principles and practices. However, such costs shall not include:

(i) any costs incurred by subcontractors or subpliers, or

(ii) any payments or amounts payable to subcontractors or suppliers, except for completed working (including partial delivereies) to which the contractor has acquired title and except for amounts paid or payable under costreimbursement or time and material subcontracts for work to which the contractor has acquired title, or

(iii) costs ordinarily capitalize and subject to depreciation or amortization except for the property depreciated or amortized portion of such costs.

(3) The amount of unliquidated progress payments shall not exceed the lesser of:

(i) 80 percent of the costs (except that this percentage shall be 35 if the contractor is a small business concern) mentioned in $a_i(1)(i)$ of this clause, blus any unliquidated progress payments mentioned in item a.(1)(ii), both of which are applicable only to the supplies and services not yet delivered and invoiced to and accepted by the Government, or

(ii) 80 percent (except that this percentage shall be 85 percent if the contractor is a small business concern) of the total contract price of supplies and services not yet delivered and invoiced to and accepted by the Government less unliquidated advance payments.

(4) The aggregate amount of progress payments made shall not exceed 80 percent of the total contract price (except that this percentage shall be 85 percent if the contractor is a small business concern).

b. Liquidation .- Except as provided in the clause entitled "Termination for Convenience of the Government," all progress payments shall be liquidated by deducting from any payment under this contract, other than advance or progress, the amount of unliquidated progress payments, or 80 percent (except that this percentage shall be 85 percent if the contractor is a small business concern) (See 41 CFR I-30.512-2 for citation of lower percentages for this paragraph b, and for subparagraph a.(3)(ii)) of the gross amount invoiced, whichever is less. Repayment to the Government required by a retroactive price reduction will be made after recalculating liquidations and payments on past invoices at the reduced prices and adjusting the unliquidated progress payments accordingly.

c. Reduction or suspension.—The contracting officer may reduce or suspend progress payments, or liquidate them at a rate higher than the percentage stated in b, of this clause, or both, whenever he finds upon substantial evidence that the contractor:

(i) has failed to comply with any material requirement of this contract.

 (ii) has so failed to make progress, or is in such unsatisfactory financial condition, as to endanger performance of this contract. (iii) has allocated inventory to this contract substantially exceeding reasonable requirements.

 (iv) is definition of in payment of the costs of performance of this contract in the ordinary course of business.

(v) has so failed to make progress that the unliquidated progress payments exceed the fair value of the work accomplished on the undelivered portion of this contract, or

(vi) is realizing less profit than the estimated profit used for establishing a liquidation percentage in paragraph b., if that liquidation percentage is less than the percentage stated in subparagraph a.(1).

d. Title.-Immediately, upon the date of this contract, title to all parts; materials; inventories: work in process: special tooling, nondurable (i.e., noncapital) tools, jigs, dies, fixtures, molds, patterns, taps, gauges, test equipment and other similar manufacturing aids not considered special tooling; and drawings and technical data (to the extent delivery thereof to the Government is required by other provisions of this contract); theretofore acquired or produced by the contractor and allocated or properly chargeable to this contract under sound and generally accepted according crinciples and practices shall forthwith vest in the Government: and title to all like property thereafter acquired or produced by the contractor and allocated or properly chargeable to this contract as aforesaid shall forthwith yest in the Government upon said acquisition production or allocation. Notwithstanding that title to property is in the Government through the operation of this clause, the nandling and disposition of such property shall be determined by the applicable provisions of this contract such as: the Default clause and paragraph h, of this clause; ermination for Convenience of the Government clause. Current production scrap may be sold by the contractor without approval of the contracting officer and the proceeds shall be credited against the costs of contract performance. With the consent of the contracting officer and on terms approved by him, the contractor may acquire or dispose of property to which title is vested in the

Government pursuant to this clause, and in that event, the costs allocable to the property so transferred from this contract shall be eliminated from the costs of contract performance and the contractor shall repay to the Government (by cash or credit memorandum) an amount equal to the unliquidated progress payments allocable to the property so transferred. Upon completion of performance of all the obligations of the contractor under this contract, including liquidation of all progress payments hereunder, title to all property (or the proceeds thereof) which had not been delivered to, and accepted by the Government under this contract or which had not been incorporated in supplies delivered to and accepted by the Government under this contract and to which title has vested in the Government under this clause shall vest in the contractor. The provisions of this contract referring to or defining liability for Government-furnished property shall not apply to property to which the Government shall have acquired title solely by virtue of the provisions of this clause.

e. Risk of loss.-Except to the extent that the Government shall have otherwise expressly assumed the risk of loss of property, title to which vests in the Government pursuant to this clause, in the event of the loss, theft, or destruction of, or damage to any such property before its delivery to and acceptance by the Government, the contractor shall bear the risk of loss and shall repay the Government an amount equal to the uniquidated progress payments based on costs allocable to such lost, destroyed, or damaged property.

f. Control of cost and property.-The contractor shall maintain an accounting system and controls adequate for the proper administration of this clause.

g. Reports-access to records.-insofar as pertinent to the administration of this clause, the contractor will:

 (i) furnish promptly such relevant reports, certificates, financial statements, and other information as may be reasonably requested by the contracting officer, and (ii) give the Government reasonable opportunity to examine and verify his books, records, and accounts.

 h. Special provisions regarding default.—If this contract is terminated pursuant to the clause entitled "Default":

(i) the contractor shall, upon demand, bay to the Government the amount of unliuidated progress payments, and

(ii) with respect to all property as to which the Government elects not to require delivery under the clause entitled "Default." title shall vest in the contractor upon full liquidation of progress payments, and the Government shall be liable for no payment except as provided by the "Default" clause.

i. Reservations of rights.-The rights and remeales of the Government provided in this clause shall not be exclusive, and are in addition to any other rights and remedies provided by law or under this contract. No payment, or vesting of title pursuant to this clause, shall excuse the contractor from performance of his obligations under this contract, nor constitute a waiver of any of the rights and remedies of the parties under this contract. No delay or failure of the Government in exercising any right, dower, or privilege under this clause shall affect any such right, power, or privilege, nor shall any single or partial exercise thereof preclude or impair any further exercise thereof or the exercise of any other right, power, or privilege of the Government.

j. Progress payments to subcontractors.

(1) The amount mentioned in a.(1)(ii) of this clause shall be the sum of:

(i) all the progress payments made by the contractor to his subcontractors and remining unliuidated, and

(ii) unbaid billings for progress payments to subcontractors which have been approved for current payment in the ordinary course of pusiness, when under subcontracts which conform to i.(2) of this clause. (2) Subcontracts on which progress payments to subcontractors may be included in the base for progress payments pursuant to paragraph a, of this clause are limited to those subcontracts in which there is expected to be a long "lead time" between the beginning of work and the first delivery, approximately 4 months or more for small business concerns and 6 months or more for firms which are not small business concerns, and in which the provisions regarding progress payments:

(i) are substantially similar to and as favorable to the Government as this "Progress Payments" clause, no more favorable to the subcontractor than this clause is to the contractor and on a basis of not more than 80 percent of total costs or 85 percent of direct labor and material costs (except that these percentages shall be 85 percent of total costs or 90 percent of direct labor and material costs for those subcontractors which are small business concerns), and:

(ii) make all rights of the subcontractor with respect to all property to which the Government has title under the subcontract subordinate to the rights of the Government to require delivery of such property to it in the event of default by the contractor under this contract or in the event of the bankruptcy or insolvency of the subcontractor.

(3) The Government agrees that any proceeds received by it from property to which it has acquired title by virtue of such provisions in any subcontract shall be applied to reduce the amount of unifoundated progress payments made by the Government to the contractor under this contract. In the event the contractor fully liquidates such progress payments made by the Government to him hereunder and there are progress payments to any supcontractors which are unliquidated, the contractor shall be subrogated to all the Government's rights by virtue of such provisions in the subcontract or subcontracts involved as if all such rights had been thereupon assigned and transferred to the contractor.

(4) The billings described in j.(1)(ii) of this clause shall be baid promotly by the contractor in the ordinary course of business, not later than a reasonable time after payment of equivalent amounts by the Government to the contractor.

(5) To facilitate small business participation in subcontracting under this contract, the contractor agrees to provide progress payments to those subcontractors which are small business concerns, in conformity with the standards for customary progress payments stated in § 1-30,503 of the Federal Produrement Regulations, as in effect on the date of this contract. The contractor further agrees that the need for such progress payments will not be considered as a handicap or adverse factor in the award of subcontracts.

19. PRICING OF ADJUSTMENTS (FPR 1-7.302-29 & 1-7.102-20)

When costs are a factor in any determination of a contract price adjustment oursuant to the "Changes" clause or any other provision of this contract, such costs shall be in accordance with the contract cost principles and procedures in part 1-15 of the Federal Procurement Regulations (41 CFR 1-15).

20. FEDERAL STATE, AND LOCAL TAXES (FPR 1-7.302-7 & 1-11.401-1(c))

(The following clause is applicable to contracts in excess of \$10,000.)

a. Except as may be otherwise provided in this contract the contract price includes all applicable Federal. State, and local taxes and duties.

b. Nevertheless, with respect to any Federal excise tax or duty on the transactions of property covered by this contract. If a statute, court decision, written ruling, or regulation takes effect after the contract date, and

(1) Results in the contractor being required to pay or bear the burden of any such Rederal excise tax or buty or increase in the rate thereof which would not otherwise have been cavable on such. transactions or property, the contract price shall be increased by the amount of such tax or duty or rate increase: Provided, That the contractor if requested by the contracting officer, warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price as a contingency reserve or otherwise; or

(2) Results in the contractor not being required to pay or bear the burden of, or in his obtaining a refund or drawback of, any such Federal excise tax or duty which would otherwise have been payable on such transactions or property or which was the basis of an increase in the contract price, the contract price shall be decreased by the amount of the relief, refund, or drawback, or that amount shall be paid to the Government, as directed by the contracting officer. The contract price shall be similarly decreased if the contractor. through his fault or neoligence or his failure to follow instructions of the contracting officer, is required to pay or bear the burden of, or does not obtain a refund or drawback of, any such Federal excise tax or duty.

c. No adjustment pursuant to paragraph b. above will be made under this contract unless the aggregate amount thereof is or may reasonably be expected to be over \$100.

d. As used in paragraph b, above, the term "contract date" means the date set for the bid opening, or if this is a negotiated contract, the date of this contract. As to additional supplies or services procured by modification to this contract, the term "contract date" means the date of such modification.

e. Unless there does not exist any reasonable basis to sustain an exemption, the Government, upon request of the contractor, without further liability, agrees, except as otherwise provided in this contract, to furnish evidence appropriate to establish exemption from any tax which the contractor warrants in writing was excluded from the contract price. In addition, the contracting officer may furnish evidence to establish exemption from any tax that may, pursuant to this clause, give rise to either an increase or decrease in the contract price. Except as otherwise provided in this contract, evidence appropriate to establish exemption from duties will be furnished only at the discretion of the contracting officer.

f. The contractor shall promptly notify the contracting officer of matters which will result in either an increase or decrease in the contract price, and shall take action with respect thereto as directed by the contracting officer.

21. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME COMPENSATION (FPR 1-7.302-16 & 1-12.303)

This contract, to the extent that it is of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), is subject to the following provisions and to all other applicable provisions and exceptions of such Act and the regulations of the Secretary of Labor thereunder.

a. Overtime requirements.-No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, apprentices, trainees, watchmen, and guards snall require or permit any laborer, mechanic. apprentice, trainee, watchman, or guard in any workweek in which he is employed on such work to work in excess of 8 hours in any calendar day or in excess of 40 hours in such workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer, mechanic, apprentice, trainee, watchman, or quard receives compensation at a rate not less than one and one-half times his basic rate of pay for all such hours worked in excess of 8 hours in any calendar day or in excess of 40 hours in such workweek, whichever is the greater number of overtime hours.

b. Violation: liability for unpaid wages: liquidated damages.—In the event of any violation of the provisions of supparagraph a., the contractor and any supcontractor responsible therefor shall be liable to any affected employee for his unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, apprentice, trainee, watchman, or guard employed in violation of the provisions of subparagraph a, in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of 8 hours or in excess of his standard workweek of 40 hours without payment of the overtime wages required by subparagraph a.

c. Withholding for unpaid wages and liquidated damages.—The contracting officer may withhold from the Government prime contractor, from any moneys payable on account of work performed by the contractor or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions of subparagraph b.

d. Subcontracts.-The contractor shall insert subparagraphs a, through d, of this clause in all subcontracts, and shall require their inclusion in all subcontracts of any tier.

e. Records.-The contractor shall maintain payroll records containing the information specified in 29 CFR-516.2(a). Such records shall be preserved for 3 years from the completion of the contract.

22. FAIR AND EQUITABLE COMPENSATION TO PROFESSIONAL EMPLOYEES (FPR Temp. Reg. 45)

(The following clause is applicable if this contract exceeds \$250,000 and will employ professional employees.)

Evaluation Criteria

a. Total compensation plan (professional employees).--in establishing compensation levels for professional employees, the total compensation (both salaries and fringe benefits) proposed shall reflect a clear understanding of the requirements of the work to be accomplished and the suitability of the proposed compensation structure to optain and retain qualified personnel to meet mission objectives. The salary rates or ranges must recognize the distinct differences in

professional skills and the complexity of varied disciplines as well as job difficulty. Proposals offering total compensation levels less than currently being baid by the predecessor contractor for the same work will be evaluated, in addition to the above, on the basis of maintaining program continuity, uninterrupted work of high quality, and availability of required competent professional employees. Offerors are cautioned that instances of lowered compensation for essentially the same professional work may be considered a lack of sound manadement judgment in addition to indicating a lack of understanding of the requirement.

b. Cost (professional compensation).-Proposals which are unrealistically low or do not reflect a reasonable relationship of compensation to the professional job categories so as to impair the contractor's ability to recruit and retain competent professional employees, may be viewed as reflecting a failure to comprehend the complexity of the contract requirements. The Government is concerned with the quality and stability of the work force to be employed on this contract. The compensation data required will be used in evaluation of the offeror's understanding of the contract requirements.

c. Other (labor relations).—An assessment of the potential for adverse effect upon performance and maintenance of the required number of professional employees with requisite skills resulting from an unrealistically low compensation structure will also be made.

23. AUDIT (FPR 1-7.303-28 & 1-3.91+2(a))

(The following clause is applicable if: (1) The contract exceeds \$100,000 or (2) in connection with the initial pricing of the contract, (i) a certificate of cost or pricing data is reduired in accordance with FPR 1-3.307-3(c), or (ii) partial cost or pricing data are obtained in accordance with FPR 1-3.307-3.)

a. General.-The contracting officer or his representatives shall have the audit and inspection rights described in the applicable supparagraphs b. c., and c. below. b. Examination of costs.-If this is a costreimbursement type, incentive, time-andmateriais, labor-nour, or price-redeterminable contract, or any combination thereof, the contractor shall maintain, and the contracting officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this contract. Such right of examination shall include inspection at all reasonable times of the contractor's plants, or such parts thereof, as may be encaded in the performance of this contract.

c. Cost or pricing data.-If the contractor submitted cost or origing data in connection with the pricing of this contract or any change or modification thereto, unless such pricing was based on adequate price competition. established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the contracting officer or his representatives who are employees of the United States Government shall have the right to examine all books, records, documents and other data of the contractor related to the negotiation, pricing or performance of such contract, change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. Additionally, in the case of pricing any change or modification exceeding \$100,000 to formally advertised contracts, the Comptroller General of the United States or his representatives who are employees of the United States Government shall have such rights. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or origing data submitted, along with the computations and projections used tnerein.

d. Availability.-The materials described in 5. and c. above, shall be made available at the office of the contractor; at all reasonable times, for inspection, audit or reproduction, until the expiration of 3 years from the date of final payment under this contract or such lesser time specified in part 1-20 of the Federal Procurement Regulations (41 CFR Part 1-20) and for such longer period, if any, as is required by applicable statute, or by other clauses of this contract, or by (1) and (2) below:

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for a period of 3 years from the date of any resulting final settlement.

(2) Records which relate to appeals under the "Disputes" clause of this contract, or litigation or the settlement of claims arising out of the performance of this contract, shall be made available until such appeals, litigation, or claims have been disposed of.

e. The contractor shall insert a clause containing all the provisions of this clause, including this subparagraph e., in all subcontracts hereunder except altered as necessary for proper identification of the contracting parties and the contracting officer under the Government prime contract.

24. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (FPR 1-7.303-16 & 1-3.314-1(a))

(Under the conditions set forth in FPR 1-3.814-1(a), the following shall be applicable.)

If any price, including profit or fee, negotiated in connection with this contract or any cost reimpursable under this contract was increased by any significant sums because:

 The contractor furnished cost or pricing data which were not accurate, complete and current as certified in the contractor's Certificate of Current Cost or Pricing Data;

b. A subcontractor, pursuant to the clause of this contract entitled "Subcontractor Cost or Pricing Data" or "Subcontractor Cost or Pricing Data—Price Adjustments" or any subcontract clause therein reduired, furnished cost or pricing data which were not accurate, complete and current as certified in the subcontractor's Certificate of Current Cost or Pricing Data; c. A subcontractor or prospective subcontractor furnished cost or pricing data which were required to be accurate, complete and current and to be submitted to support a subcontract cost estimate furnished by the contractor but which were not accurate, complete and current as of the date certified in the contractor's Cartificate of Current Cost or Pricing Data; or

d. The contractor or a subcontractor or prospective subcontractor furnished any data. not within a., b. or c. above, which were not accurate as submitted: the price or cost shall be reduced accordingly and the contract shall be modified in writing as may be necessary to reflect such reduction. However, any reduction in the contract price due to defective subcontract data of a prospective subcontractor when the subcontract was not subsequently awarded to such subcontractor. will be limited to the amount (plus applicable overhead and profit markup) by which the actual subcontract, or actual cost to the contractor if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the contractor: Provided. The actual subcontract price was not affected by defective cost or origing data.

(NOTE: Since the contract is subject to reduction under this clause by reason of defective cost or origing data submitted in connection with certain subcontracts, it is expected that the contractor may wish to include a clause in each such subcontract requiring the subcontractor to appropriately indemnify the contractor. It is also expected that any subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by his lower tier subcontractors.)

25. SUBCONTRACTOR COST OR PRICING DATA (FPR 1-7.303-29 & 1-3.814-3)

a. The contractor shall require subcontractors hereunder to submit, actually or by specific identification in writing, cost or pricing data under the following circumstances: (1) Prior to the award of any subcontract the amount of which is expected to exceed \$100,000 when entered into;

(2) Prior to the pricing of any subcontract modification which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000; except where the price is pased on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation.

b. The contractor shall require subcontractors to certify, in substantially the same form as that used in the certificate by the prime contractor to the Government, that to the best of their knowledge and belief, the cost and pricing data submitted under a, above are accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract change or modification.

c. The contractor shall insert the substance of this clause including this subparagraph c. in each subcontract hereunder which exceeds \$100,000 when entered into except where the orice thereof is based on adequate orice competition, established datalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation. In each such excepted subcontract hereunder in excess of \$100,000, the contractor shall insert the substance of the following clause:

SUBCONTRACTOR COST OR PRICING

a. Subparagraphs b. and c. of this clause shall become operative only with respect to any modification made pursuant to one or more provisions of this contract which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000. The requirements of this clause shall be limited to such contract modifications.

5. The contractor shall reduire subcontractors hereunder to submit, actually or by specific identification in writing, cost or pricing data under the following circumstances:

(1) Prior to award of any subcontract, the amount of which is expected to exceed \$100,000 when entered into:

(2) Prior to the pricing of any subcontract modification which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000: except where the price is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation.

c. The contractor shall require subcontractors to cartify, in substantially the same form as that used in the certificate by the prime contractor to the Government, that to the best of their knowledge and belief the cost and pricing data submitted under b, above are accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract change or modification.

d. The contractor shall insert the substance of this clause including this subparagraph d. In each subcontract hereunder which exceeds \$100,000 when entered into.

25. COST ACCOUNTING STANDARDS-NONDEFENSE CONTRACT (FPR 1-7.303-55 & FPR Temp. Reg. 44)

(If this contract exceeds \$100,000 and the contract is not exempt pursuant to FPR 1-3.1203-2(a), (b), and (c), the following shall apply.)

a. Unless the Administrator of General Services has prescribed rules or regulations exempting the contractor or this contract from standards, rules, and regulations promulgated by the Cost Accounting Standards Board, the contractor, in connection with this contract, shall:

(1) Follow consistently the cost accounting practices established or disclosed as required by regulations of the Cost Accounting Standards Board and administered under the Administration of Cost Accounting Standards clause. If any change in disclosed practices is made for purposes of any contract or subcontract subject to those disclosure requirements, the change must be applied in a consistent manner to this contract.

(2) Comply with all cost accounting standards which the contractor is required to comply with by reason of concurrent performance of any contract or subcontract subject to the Cost Accounting Standards clause (4 CFR 331) and administered under the Administration of Cost Accounting Standards clause. The contractor also shall comply with any cost accounting standard which hereafter becomes applicable to such a contract or subcontract. Such compliance shall be required prospectively from the date of applicability to such contract or subcontract. Compliance shall continue until the contractor completes performance of work under this contract.

(3) Agree to an equitable adjustment (as provided in the Changes clause of this contract, if any) if the contract cost is affected by a change which, pursuant to (2) above, the contractor is required to make to his established cost accounting practices whether such practices are covered by a Disclosure Statement or not.

(4) Negotiate with the contracting officer to determine the terms and conditions under which a change to either a disclosed cost accounting practice or an established cost accounting practice, other than a change under a.(3) above, or a.(6) below, may be made. A change to a practice may be proposed by either the Government or the contractor: Provided, however, that no agreement may be made under this provision that will increase costs paid by the United States.

(5) Agree to an adjustment of the contract orice or cost allowance, as appropriate, if it or a subcontractor fails to comoly with the applicable Cost Accounting Standards or to follow any practice disclosed or established pursuant to subparagraph a.(1) or (2) above and such failure results in any increased costs baid by the United States. Such adjustment shall provide for recovery of the increased costs to the United States together with interest thereon computed at the rate determined by the Secretary of the Treasury pursuant to P.L. 92-41 (50 U.S.C. App. 1215(b)(2)), or 7 percent per annum, whichever is less, from time the payment by the United States was made to the time the adjustment is effected.

(6) Negotiate an equitable adjustment (as provided in the Changes clause of this contract, if any) when the parties agree to a change to either a disclosed cost accounting practice or an established cost accounting practice.

b. The contractor shall permit any authorized representatives of the head of the agency, of the Cost Accounting Standards Board, or of the Comptroller General of the United States to examine and make copies of any documents, papers, or records relating to compliance with the requirements of this clause until the expiration of 3 years after final payment under this contract or such lesser time specified in the Federal Procurement Regulations (FPR) part 1-20.

c. Unless a subcontract or subcontractor is exempt under rules or regulations prescribed by the administrator of General Services, the contractor: (1) shall include the substance of this clause, including this subparagraph c., in all negotiated subcontracts under this contract with subcontractors that are currently performing a national defense contract or subcontract that contains the. clause entitled Cost Accounting Standards and that are currently required to accept the clause in applicable national defense awards. and (2) shall include the substance of the Consistency of Cost Accounting Practices-Nondefense Contract clause set forth in 6 1-3.1204-2(b) of the FPR in negotiated subcontracts under this contract with all other supcontractors. The contractor may elect to use the substance of the solicitation notice set forth in @ 1-3.1203-2(b) of the FPR in his determination of applicability cost accounting standards to subcontracts.

d. The terms defined in ϕ 331.20 of part 331 of title 4. Code of Federal Regulations. snall have the same meaning nerein. As there defined, "negotiated subcontract" means 'any subcontract except a firm fixed-price subcontract made by a contractor or supcontractor after receiving offers from at least two firms not associated with each other or such contractor or subcontractor, providing (1) the solicitation to all competing firms is identical. (2) price is the only consideration in selecting the supcontractor from among the competing firms solicited, and (3) the lowest offer received in compliance with the solicitation from among those solicited is accepted."

e. The administration of this clause by the Government shall be accomplished in conjunction with the administration of the contractor's national defense contracts and supcontracts subject to rules and regulations of the Cost Accounting Standards Board. pursuant to the Administration of Cost Accounting Standards clause. For the purpose of the Administration of Cost Accounting Standards clause contained in this contract, references to the Cost Accounting Standards clause shall be deemed to include this Cost Accounting Standards-Nondefense Contract clause and reference to the Disclosure and Consistency of Cost Accounting Practices clause shall be deemed to include the Consistency of Costing Accounting Practices -Nondefense Contract clause.

27. CONSISTENCY OF COST ACCOUNTING PRACTICES-NONDEFENSE CONTRACT (FPR 1-7.303-55 & FPR Temp. Reg 44)

(This clause shall apply if this contract is the first negotiated hondefense contract over \$500,000 received by a contractor business unit not performing a cost accounting standard contract or subcontract pursuant to FPR 1-3.1203-2(c)(3).)

a. Unless the Administrator of General Services has prescribed rules or regulations exempting the contractor or this contract from standards, rules, and regulations promulgated by the Cost Accounting: Standards Board, the contractor, in connection with this contract, shall: (1) Comply with the requirements of 4 CFR parts 401, Consistency in Estimating, Accumulating, and Reporting Costs, and 402. Consistency in Allocating Costs Incurred for the Same Purpose, in effect on the date of award of this contract and administered under the Administration of Cost Accounting Standards clause. Compliance shall continue until the contractor completes performance of work under this contract.

(2) Follow consistently the cost accounting practices established or disclosed as required by regulations of the Cost Accounting Standards Board and administered under the Administration of Cost Accounting Standards clause. If any change is made in established practices or in disclosed practices for purposes of any contract or subcontract subject to those disclosure requirements, the change must De applied in a consistent manner to this contract. A change to these practices may be proposed, however, by either the Government or the contractor and the contractor agrees to negotiate with the contracting officer the terms and conditions under which a change may be made. After the terms and conditions under which the change is to be made have been agreed to, the change must be applied prospectively to this contract. No agreement may be made under this provision that will increase costs cald by the United States.

(3) Agree to an adjustment of the contract price or cost allowance, as appropriate, if it or a subcontractor fails to comply with the applicable Cost Accounting Standards or to follow any practice disclosed or established oursuant to subparagraph a.(2) above and such failure results in any increased costs baid by the United States. Such adjustment snall provide for recovery of the increased costs to the United States together with interest thereon computed at the rate determined by the Secretary of the Treesury pursuant to P.L. 92-41 (50 U.S.C. Aco. 1215(b)(2)), or 7 percent per annum. whichever is less from the time the cavment ov the United States was made to the time the adjustment is effected.

(4) Negotiate an equitable adjustment (as provided in the Changes clause of this contract, if any) when the parties agree to a change to either a disclosed cost accounting practice or an established cost accounting practice.

b. The contractor snall cermit any authorized representatives of the head of the agency, of the Cost Accounting Standards Board, or of the Comptroller General of the United States to examine and make cobies of any documents, papers, or records relating to compliance with the requirements of this clause until the expiration of 3 years after final payment under this contract or such lesser time specified in the Federal Procurement Regulations (FPR) part 1-20.

c. Unless a subcontract or subcontractor is exempt under rules or regulations prescribed by the Administrator of General Services, the contractor shall include the substance of this clause. including this supparagraph c., in all negotiated succontracts under this contract. except that it shall include the substance of the Cost Accounting Standards-Nondefense Contract clause set forth in \$ 1-3.1204-2(a) of the FPR in negotiated subcontracts under this contract with subcontractors that are currently performing a national defense contract or succontract that contains the clause entitled Cost Accounting Standards and that are currently required to accept that clause in applicable nedotlated national defense contracts. The contractor may elect to use the substance of the solicitation notice. set forth in o 1-3.1203-2(b) of the FPR in his determination of applicability of cost accounting standards to subcontracts.

d. The terms defined in 4 CFR 331.20 and 332.20 shall have the same meanings herein. As there defined, "hegotlated sudcontract" means "any subcontract except a firm fixedorice subcontract made by a contractor or subcontractor after receiving offers from at teast two firms not associated with each other or such contractor or subcontractor, providing (1) the solicitation to all competing firms is identical. (2) price is the only consideration in selecting the subcontractor from among the competing firms solicited, and (3) the lowest differ received in compliance with the solicitation from among those solicited is accepted."

 The administration of this clause by the Government shall be accomplished in conjunction with the administration of the contractor's national defense contracts and subcontracts, if any, subject to rules and regulations of the Cost Accounting Standards Board, pursuant to the Administration of Cost Accounting Standards clause. For the aurooses of the Administration of Cost Accounting Standards clause contained in this contract, references to the Disclosure and Consistency of Cast Accounting Practices clause shall be deemed to include this Consistency of Cost Accounting Practices-Nondefense Contract clauses and references to the Cost Accounting Standards clauses shall be deemed to include the Cost Accounting Standards-Nongefense Contract clause.

28. ADMINISTRATION OF COST ACCOUNTING STANDARDS (FPR 1-7.303-55 & FPR Temp. Reg. 44)

(If this contract exceeds \$100,00 and the contract is not exempt pursuant to FPR 1-3.1203-2(a), (b), and (c), the following shall apply.)

For the purpose of administrating Cost Accounting Standards requirements under this contract, the contractor shall:

a. Submit to the cognizant contracting officer a description of the accounting change and the general dollar magnitude of the change to reflect the sum of all increases and the sum of all decreases for all contracts containing the Cost Accounting Standards clause or the Disclosure and Consistency of Cost Accounting Practices clause:

(1) For any change in cost accounting practices required to comply with a new cost accounting standard in accordance with subparagraphs $a_i(3)$ and (4)(A) of the Cost Accounting Standards clause within 50 days (or such other date as may be mutually agreed to) after award of a contract requiring such change:

(2) For any change to cost accounting practices proposed in accordance with subparagraph a.(4)(B) or a.(4)(C) of the Cost Accounting Standards clause or with subparagraph a.(3) or a.(5) of the Disclosure and Consistency of Cost Accounting Practices clause not less than 60 days (or such other date as may be mutually agreed to) prior to the effective date of the proposed change: or

(3) For any failure to comply with an applicable Cost Accounting Standard or to follow a disclosed practice as contemplated by supparagraph a.(5) of the Cost Accounting Standards clause or with supparagraph a.(4) of the Disclosure and Consistency of Cost Accounting Practices clause within 60 days (or such other date as may be mutually agreed to) after the date of agreement of such honcompliance by the contractor.

5. Submit a cost impact proposal in the form and manner specified by the cognizant contracting officer within 30 days (or such other date as may be mutually agreed to) after the date of determination of the adequacy and compliance of a change submitted pursuant to a.(1), (2), or (3) above.

c. Agree to appropriate contract and subcontract amendments to reflect adjustments established in accordance with supparagraphs a.(4) and (5) of the Cost Accounting Standards clause or with subparagraphs a.(3), (4), or (5) of the Disclosure and Consistency of Cost Accounting Practices clause.

d. When the subcontract is subject to either the Cost Accounting Standards clause or the Disclosure and Consistency of Cost Accounting Practices clause so state in the body of the subcontract and/or in the letter of award. Self-deleting clauses shall not be used.

e. Include the substance of this clause in all negotiated subcontracts containing either the Cost Accounting Standards clause or the Disclosure and Consistency of Cost Accounting Practices clause, in addition, include a provision in these subcontracts which will require such subcontractors, within

30 days after receipt of award (or such other date as may be mutually agreed to) to submit the following information to the Contract Administration Office cognizant of the subcontractor's facility.

(1) Subcontractor's name and subcontract number.

(2) Dollar amount and date of award.

(3) Name of contractor making the award.

(4) A statement as to whether the subcontractor has made or proposes to make any changes to accounting practices that affect prime contracts or subcontracts containing the Cost Accounting Standards clause or Disclosure and Consistency of Cost Accounting Practices clause unless such changes have already been reported. If award of the subcontract results in making a cost accounting standard(s) effective for the first time, this shall also be reported.

f. For negotiated subcontracts containing the Cost Accounting Standards clause, require the subcontractor to comply with all standards in effect on the date of final agreement on price as shown on the subcontractor's signed Cartificate of Current Cost or Pricing Data or date of award, whichever is earlier.

g. In the event an adjustment is required to be made to any subcontract hereunder, notify the contracting officer in writing of such adjustment and agree to an adjustment in the price or estimated cost and fee of this contract, as appropriate, based upon the adjustment established under the subcontract. Such notice shall be given within 30 days after receipt of the proposed subcontract adjustment, and shall include a proposal for adjustment to such higher tier subcontract or prime contract as appropriate.

n. When either the Cost Accounting Standards clause or the Disclosure and Consistency of Cost Accounting Practices clause and this clause are included in succontracts, the term "contracting officer" shall be suitably altered to identify the burchaser. 29. OFFICIALS NOT TO BENEFIT (FPR 1-7.302-18 & 1-7.102-17)

No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

30. COVENANT AGAINST CONTINGENT

(FPR 1-7.302-19 & 1-1.503)

The contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employee or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

31. CONVICT LABOR (FPR 1-7.302-14 & 1-12.204)

In connection with the performance of work under this contract, the contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176. September 10, 1965 (18 U.S.C. 4082(c)(2)) Executive Order No. 11755. December 29, 1973.

32. EQUAL OPPORTUNITY (FPR 1-7.302-16 & Fed. Reg. 10-20-78)

(The following clause is applicable unless this contract is exempt uncer the rules, regulations, and relevant orders of the Secretary of Labor (41 CFR, cn. 60).)

During the performance of this contract, the contractor agrees as follows:

a. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion.

sex. or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation: and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

b. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without discrimination because of race, color, religion, sex, or national origin.

c. The contractor will send to each labor union or representative of workers, with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the contracting officer, advising the said labor union or workers' representative of the contractor's commitments under section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

e. The contractor will furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will cermit access to its books, records, and accounts by the contracting officer and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and others. f. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contractor with any of the such rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

g. The contractor will include the provisions of supparagraphs a, through g, in every subcontract or purchase order unless exempted by the rules, requiations, or orders of the Secretary of Labor issued pursuant to section 204 of said amended Executive Order, so that such provisions will be binding upon each subcontrotor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance; Provided. nowever, That in the event a contractor becomes involved in, or is threatened with. litidation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litidation to protect the interests of the United States.

Note: Equal Employment Obdortunity provisions are directed by Executive Order No. 11246 of September 24, 1965 (3 CFR bage 167, 1965 Subplement), as amended by Executive Order No. 11375 of October 13, 1967 (3 CFR bage 320, 1967 Compliation), and Executive Order No. 12086 of October 5, 1978."

33. LISTING OF EMPLOYMENT OPENINGS (FPR 1-7, 302-30 & TEMP. REG. 39)

a. The contractor will not discriminate against any employee or achicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: employment ubgrading, demotion or transfer, requitment, advertising, layoff or termination, rates of day, or other forms of compensation, and selection for training, including apprenticeship.

b. The contractor agrees that all suitable employment openings of the contractor which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the contractor other than the one wherein the contract is being performed, but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the state employment service system wherein the opening occurs. The contractor further agrees to provide such reports to such local office regarding employment openings and hires as may be required.

State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the state employment service, but are not required to provide those reports set forth in subparagraphs d, and e.

c. Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and nonveterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the contractor from any requirements in Executive orders or regulations regarding nondiscrimination in employment.

a. The reports required by subparagraph b, of this clause shall include, but not be limited to, periodic reports which shall be filed at least

quarterly with the appropriate local office, or where the contractor has more than one hiring location in a state, with the central office of that state employment service. Such reports shall indicate for each niring location (1) the number of individuals hired during the reporting period, (2) the number of nondisabled veterans of the Vietnam era hired. (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1787. The contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this contract identifying data for each niring location. The contractor shall maintain at each hiring location copies of the reports submitted until the expiration of 1 year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment, and placement.

e. Whenever the contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each state where it has establishments of the name and location of each hiring location in the state. As long as the contractor is contractually bound to these provisions and has so advised the state system, there is no need to advise the state system of subsequent contracts. The contractor may advise the state system when it is no longer bound by this contract clause.

f. This clause does not apply to the listing of employment openings which occur and are filled outside the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

g. The provisions of subparagraphs b...c.. d., and e. of this clause do not apply to openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employerunion arrangement for that opening.

h. As used in this clause:

(1) "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: production and nonproduction; plant and office: laborers and mechanics: supervisory and nonsupervisory; technical; and executive, administrative, and professional openings that are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment. It does not include openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement, nor openings in an educational institution which are restricted to students of that institution. Under the most compelling circumstances, an employment opening may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to national security. Gr where the requirement of listing would otherwise not be for the best interest of the Government.

(2) "Appropriate office of the state employment service system" means the local office of the Federal/State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

(3) "Openings which the contractor proposes to fill from within his own organization" means employment openings for which no consideration will be given to persons outside the contractor's organization (including any affiliates, subsidanes, and the parent companies) and includes any openings which the contractor proposes to fill from regularly established "recall" lists. (4) "Openings which the contractor proposes to fill oursuant to a customary and traditional employer-union niring arrangement" means employment openings which the contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the contractor and representatives of his employees.

i. The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.

j. In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the act.

k. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the director, provided by or through the contracting officien. Such notice small state the contractor's obligation under the law to take affirmative action to employ and advance in employment cualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

1. The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding that the contractor is bound by terms of the Vietnam Era Veteran's Readjustment Assistance Act and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era.

m. The contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or profers of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of Federal Contract Compliance Programs may direct to enforce such provisions. including action for noncompliance.

34. EMPLOYMENT OF THE HANDI-CAPPED (FPR 1-7.302-33 & Temp Reg 38)

a. The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment. upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticesnip.

b. The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Rehabilitation Act of 1973, as amended.

c. In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

d. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director. Office of Federal Contract Compliance Programs. Department of Labor, provided by or through the contracting officer. Such notices shall state the contractor's obligations under the law to take affirmative action to employ and a d v a n c e in employment dualified handicapped employees and applicants for employment, and the rights of applicants and employees.

e. The contractor will notify each labor union or representative of workers with which it has a collective pargaining agreement or other contract understanding, that the contractor is bound by the terms of section 503 of the Act and is committed to take affirmative action to employ and advance in employment physically and mentally nandicapped individuals.

f. The contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director, Office of Federal Contract Compliance Programs, may direct to enforce such provisions, including action for noncompliance.

35. COMPETITION IN SUBCONTRACTING (FPR 1-7.303-27 & 1-7.202-30)

The contractor shall select subcontractors (including suppliers) on a competitive pasis to the maximum practicable extent consistent with the objectives and requirements of the contract.

36. UTILIZATION OF LABOR SURPLUS AREA CONCERNS (FPR 1-7.302-26 & 1-1.805-3(a))

(The following clause is applicable if this contract exceeds \$10,000 and is for services which are not personal in nature.)

a. It is the policy of the Government to award contracts to labor surplus area concerns that agree to perform substantially in labor surplus areas, where this can be cone consistent with the efficient performance of the contract and at prices no higher than are obtainable elsewhere. The contractor agrees to use his best efforts to place his subcontracts in accordance with this policy.

b. In complying with subparagraph a, of this clause and with subparagraph b, of the clause of this contract entitled "Utilization of Small Business Concerns," the contractor in blacing his subcontracts shall observe the following order of preference: (1) small business concerns that are labor surplus area concerns, (2) other small business concerns, and (3) other labor surplus area concerns.

c. (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.

(2) The term "labor surplus area concern" means a concern that together with its firsttier subcontractors will perform substantially in labor surplus areas.

(3) The term "perform substantially in a labor surplus area" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the contract price.

37. LABOR SURPLUS AREA SUBCON-TRACTING PROGRAM (FPR 1-7.302-26 & 1-1.305-3(b))

(The following clause is applicable if this contract exceeds \$600,000.)

a. The contractor agrees to establish and conduct a program which will encourage labor surplus area concerns to compete for subcontracts within their capabilities. In this connection, the contractor shall-

(1) Designate a liaison officer who will (i) maintain liaison with duly authorized representatives of the Government on labor surplus area matters. (ii) supervise compliance with the Utilization of Concerns in Labor Surplus Areas clause, and (iii) administer the contractor's "Labor Surplus Area Subcontracting Program";

(2) Provide adequate and timely consideration of the potentialities of labor surplus area concerns in all "make-or-buy" decisions;

(3) Assure that labor surplus area concerns will have an eduitable opportunity to compete for supcontracts, particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of labor surplus area concerns; (4) Maintain records showing the procedures which have been adopted to comply with the policies set forth in this clause and report subcontract awards (see 41 CFR 1-16.804-5 regarding use of Obtional Form 61). Records maintained pursuant to this clause will be kept available for review by the Government until the expiration of 1 year after the award of this contract, or for such longer period as may be required by any other clause of this contract or by applicable law or regulations: and

(5) Include the Utilization of Concerns in Labor Surplus Areas clause in subcontracts which offer substantial labor surplus area subcontracting opportunities.

b. (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.

(2) The term "concern located in a labor surplus area" means a labor surplus area concern.

(3) The term "labor surplus area concern" means a concern that, together with its first-tier subcontractors, will perform substantially in labor surplus areas.

(4) The term "perform substantially in labor surplus areas" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the contract price.

c. The contractor further agrees to insert, in any subcontract hereunder which may exceed \$500,000 and which contains the Utilization of Concerns in Labor Surbius Areas clause, provisions which shall conform substantially to the language of this clause, including this subparagraphic, and to notify the contracting officer of the names of such subcontractors.

38. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOM-ICALLY DISADVANTAGED INDI-VIDUALS (FED. REG. 4-20-79 & 6-18-79)

a. It is the policy of the United States that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals shall have the maximum practicable opportunity to participate in the performance of contracts let by any Federal agency.

b. The contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with the efficient performance of this contract. The contractor further agrees to cooperate in any studies or surveys that may be conducted by the Smail Business Administration or the contracting agency which may be necessary to determine the extent of the contractor's compliance with this clause.

c. (1) The term "small business concern" shall mean a small business as defined pursuant to section 3 of the Small Business Act and in relevant regulations promulgated pursuant thereto.

(2) The term "small business concern owned and controlled by socially and economically disadvantaged individuals" snall mean a small business concern:

(i) which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals: or in the case of any publicly owned business, at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

(ii) whose management and daily business operations are controlled by one or more of such individuals.

The contractor shall presume that socially and economically disadvantaged individuals include Black Americans. Hispanic Americans, Native Americans, and other minorities, or any other individual found to be disadvantaged by the Small Business Administration pursuant to section 8a, of the Small Business Act.

c. Contractors acting in good faith may rely on written representations by their subcontractors as either a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.

39. SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS SUBCONTRACTING PLAN (NEGOTIATED)

(This clause is applicable if this contract exceeds \$500,000 and offeror is other than a small business concern.)

a. The offeror acknowledges that it is aware of the subcontracting plan requirements in this provision, and, if it is the apparent successful offeror, agrees to negotiate a plan which includes:

(1) Percentage goals (expressed in terms of percentage of total planned subcontracting collars) for the utilization as subcontractors of small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals: (For the purposes of the subcontracting plan, the contractor shall include all purchases which contribute to the performance of the contract, including a proportionate share of products, services, etc. whose costs are normally allocated as indirect or overhead costs:)

(2) The name of an individual within the emolov of the offeror who will administer the subcontracting program of the offeror and a description of the duties of such individual:

(3) A description of the efforts the offeror will take to assure that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals will have an equitable opportunity to compete for subcontracts;

(4) Assurances that the offeror will include the clause entitled Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals in all subcontracts which offer further subcontracting opportunities and to require all subcontractors (except small business concerns) who receive subcontracts in excess of \$500,000, or in the case of a contract for the construction of any public facility, \$1,000,000 to adopt a plan similar to the plan agreed to by the offeror:

(5) Assurances that the offeror will submit such cenodic reports and cooperate in any studies or surveys as may be required by the contracting agency or the Small Business Administration in order to determine the extent of compliance by the offeror with the subcontracting plan; and

(6) A recitation of the types of records the offeror will maintain to demonstrate procedures which have been adopted to comply with the requirements and goals set forth in the plan, including the establishment of source lists of small business concerns and small business concerns demonstrate by socially and economically disadvantaged individuals; and efforts to identify and award subcontracts to such small business concerns.

5. The offeror understands that:

(1) No contract will be awarded unless and until an acceptable plan is negotiated with the contracting officer and that an acceptable plan will be incorporated into the contract, as a material part thereof.

(2) An acceptable plan must, in the determination of the contracting officer, provide the maximum practicable opportunity for small business concerns and small business concerns owned and controlled by socially and economically disadvantaged persons to participate in the performance of the contract.

(3) If a succontracting plan acceptable to the contracting officer is not negotiated within the time limits prescribed, the offeror shall be ineligible for an award. The contracting officer shall notify the contractor in writing of his reasons for determining a subcontracting plan to be unacceptable. Such notice shall be given early enough in the negotiation process to allow the contractor to modify the plan within the time limits prescribed.

(4) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the contracting officer in determining the responsibility of the offeror for award of the contract.

(5) It is the offeror's responsibility to develop a satisfactory subcontracting plan with respect to both small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals and that each such aspect of the offeror's plan will be judged independently of the other.

 Subcontracting plans are not required of small business concerns.

d. The failure of any contractor or subcontractor to comply in good faith with:

(1) The clause entitled Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals: or

(2) An approved plan required by this Small Business and Small Disadvantaged Business Subcontracting Plan (Negotiated) provision, will be a material preach of such contract or subcontract.

 Nothing contained in this provision supersedes the requirements of Defense Mandower Policy 4A or any successor policy. 40. INCENTIVE SUBCONTRACTING PROGRAM FOR SMALL BUSI-NESS AND SMALL DISAD-VANTAGED BUSINESS (NEGOTIATED)

a. The contractor has established, in his subcontracting bian, the following goals for awards to small business and small disadvantaged business concerns:

(1) ______ percent of the total planned subcontract amount of S______ to small business concerns and

(2) ______ percent of the total planned subcontract amount of S______ to small business concerns owned and controlled by socially and economically disadvantaged individuals.

b. To the extent that the contractor exceeds such subcontract goals in the performance of this contract, it will receive percent (not to exceed 10 percent) of the dollar amount of such excesses, unless the contracting officer determines that such excess was not due to efforts by the contractor, i.e., subcontractor cost overruns or where the actual subcontract amount exceeds that estimated in the subcontract plan; or planned subcontract plan during contract negotiation.

c. If the contract is a cost plus fixed-fee type, the total of the fixed fee and the incentive payments made pursuant to this clause is subject to the limitations set forth in FPR 1-3.405-5(c)(2) and DAR 3-405.6(c)(2).

41. CLEAN AIR AND WATER (FPR 1-7.302-34 & 1-1.2302-2)

(Applicable only if the contract exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any one year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Controt Act (33 U.S.C. 1319(c)) and is listed by EPA, or the contract is not otherwise exempt.)

a. The contractor agrees as follows:

(1) To comply with all the requirements of section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et sec., as amended by Public Law 91-604) and section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et sec., as amended by Public Law 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in section 114 and section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this contract.

(2) That no portion of the work required by this prime contract will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this contract was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

(3) To use his best efforts to comply with clean air standards and clean water standards at the facility in which the contract is being performed.

(4) To insert the substance of the provisions of this clause in any nonexempt subcontract, including this subparagraph a.(4).

b. The terms used in this clause have the following meanings:

(1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Public Law 91-604).

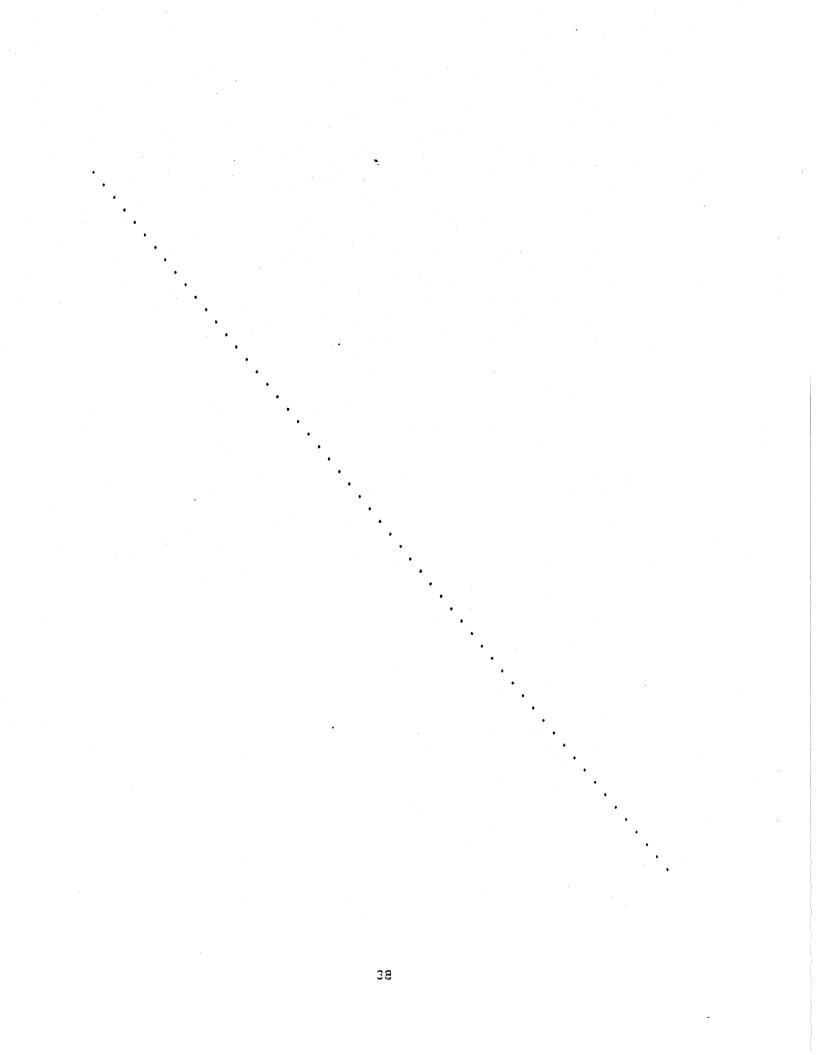
(2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Public Law 92-500).

(3) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, pronibitions, or other reduirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order No. 11738, an applicable implementation plan as described in section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act (42 U.S.C. 1857c-6(c) or (d)), or an approved implementation procedure under section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).

(4) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a state under an approved program as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).

(5) The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency, or an air or water pollution control agency in accordance with the requirements of the Air Act or Water Act and regulations issued pursuant thereto.

(6) The term "facility" means any building, plant, installation, structure, mine, vessel or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor or subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director. Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.



SPECIAL REQUIREMENTS

B-1 The Requirement

It is required that a seismotectonic analysis be made of nine (9) existing and potential damsites.

B-2 Services and Materials to be furnished by the Contractor

The contractor shall furnish all personnel, equipment, materials and transportation necessary to perform the work required by this solicitation.

B-3 Materials and Data to be Furnished by the Government

The Government will furnish the following data to the contractor within ten (10) calendar days after award of the contract:

a. Theodore Roosevelt Dam - Final Geologic and Foundation Report for Theodore Roosevelt powerhouse, Bechtel Corporation for Salt River Project, August 1972.

b. Reconnaissance Geologic Evaluation of Exiisting Dams in Salt River, Arizona, Bureau of Reclamation, February 1979. (Report includes all dams on the Salt River).

c. Stewart Mountain Dam Foundation Evaluation - Stewart Mountain Dam, Salt River Project Safety of Dams Program, Bureau of Reclamation, February 1967.

d. Engineering Geology - Stewart Mountain damsite, R. T. Tilford, M. S. Thesis, Arizona State University, 1966.

e. Horse Mesa Dam - Geology of Horse Mesa damsites, R. L. Heaton, Bureau of Reclamation, April 1937.

f. Final Geologic and Foundation Report for Horse Mesa powerhouse No. 2, Bechtel Corporation for Salt River Project, August 1972.

g. Geological Report on Mormon Flat and Horse Mesa Dams, F. T. Ransome, Bureau of Reclamation, April 1935.

h. Mormon Flat Dam - Final Geologic and Foundation Report for Mormon Flat powerhouse No. 2, Bechtel Corporation, Salt River Project, March 1970.

i. Geology of Mormon Flat Dam, E. C. Koppen, Bureau of Reclamation, 1938.

j. Bartlett Dam - Geology Report Bartlett Dam, Spillway, Bureau of Reclamation, August 1970.

SPECIAL REQUIREMENTS (continued)

k. Geology of the Bartlett damsite, Verde River, Arizona, F. A. Nickell, Bureau of Reclamation, November 1935.

1. Final Report Bartlett Dam, Salt River Project Arizona, Bureau of Reclamation November 1939.

m. Horsehoe Dam - Report of Borrow Pit Soils Investigation, Horsehoe Dam, Verde River, Maricopa County, Arizona, Dames and Moore Engineers for the Phelps Dodge Corporation, January 1944.

n. Orme Damsite - Preliminary Report on Geology of the McDowell damsite on the Verde River about a mile upstream of the Orme site, Bureau of Reclamation, March 1950.

o. Maxwell Project, Maxwell Dam and reservoir (now Orme damsite) geologic data for feasibility estimates, Bureau of Reclamation, January 1963.

p. Engineering Geology Appendix - Reconnaissance Design Data for (1) Orme Dam at Granite Reef with appurtenant works and (2) Low Dam at Granite Reef with appurtenant work, Bureau of Reclamation, October 1969.

q. New Waddell Damsite - Geologic appendix of current exploration in progress is in preparation; includes results of geologic mapping and test drilling.

r. Buttes Damsite - Report on Buttes Dam and reservoir, Middle Gila River Project, Arizona, November 1960.

No other facilities, property, or materials will be provided by the Government.

B-4 Type of Contract

This contract shall be a firm fixed price type of contract.

B-5 Delivery Point

The final reports and all other materials and data to be furnished under this solicitation shall be delivered at the contractor's expense to:

U.S Department of Interior Water and Power Resources Service Engineering Research Center Contracting Officer, D-810 Building 67, Room 570, Denver Federal Center P.O. Box 25007 Denver, Colorado 80225

SPECIAL REQUIREMENTS (Continued)

B-6 Commencement of Work

The contractor shall begin work as soon as possible and not later than ten (10) calendar days after date of receipt of notice of award of contract.

B-7 Performance, Completion - Urgency of

Time of performance is important and the contractor shall complete the work and make delivery of the required reports and materials as specified below:

a. Three (3) copies of the proposed final report for Theodore Roosevelt Dam and Stewart Mountain Damsites shall be delivered within forty-five (45) calendar days following receipt of notice of award of contract

b. When field exploration services are required, three (3) copies of the proposed final report for Theodore Roosevelt and Stewart Mountain damsites shall be delivered within ninety (90) calendar days following receipt of notice of award of contract.

c. Three copies of the proposed final report for the remaining seven (7) damsites shall be delivered within one-hundred (100) calendar days following receipt of notice of award of contract.

c. When field exploration work is required for the remaining seven (7) damsites, the three copies of the proposed final report for the remaining seven (7) damsites shall be delivered within <u>196</u> calendar days following receipt of notice of award of contract.

d. Fifteen (15) copies of the final report for the various damsites shall be delivered within thrity (30) calendar days after receipt of the copies of the proposed final report and comments from the Government.

e. All materials and data used to prepare the final report shall be delivered within thrity (30) calendar days following approval of the final report.

B-8 Payment

a. Upon completion of a final report for the various damsites including delivery of the final report, payment will be made for such completed damsites at the unit price stated in the schedule.

b. Ninety percent of the amount due will be paid within 30 calendar days after receipt by the Water and Power Resources Service of proper invoices and bills of lading, properly receipted from the contractor

covering completed services accepted by the Government under this solicitation including acceptable resubmittals of rejected materials; <u>Provided</u>, That delivery to the Government has been effected at the destination point as required.

SPECIAL REQUIREMENTS (continued)

All materials for which payments have been made shall thereupon become the property of the Government, but this provision shall not be construed as relieving the contractor from the sole responsibility (prior to completion of the contract) for the care and protection of materials remaining in his possession for which payments have been made or the restoration of any work damaged from any cause, or as a waiver of the right of the Government to require the fulfillment of all the terms of the contract; <u>Provided</u>, That the contractor will not be responsible for damage resulting from the improper handling by the Government or improper care during storage while under the control of the Government.

c. Final Payment

When the services of either schedule are substantially complete, the Contracting Officer, if he considers the amount retained to be in excess of the amount adequate for the protection of the Government, at his discretion, may release to the contractor all or a portion of such excess amount. When the terms of either schedule of the contract shall have been fully complied with, including complete delivery and acceptance of all data and materials required by the contract or used to perform the required services, final payment will be made of the balance due under the schedule. After completion of the services and prior to final payment, the contractor shall furnish to the Contracting Officer, if he requires, a release of claims against the United States arising out of the contract, other than claims specifically excepted from the operation of the release.

d. Submit invoices for payment to:

Water and Power Resources Service PO Box 25007 Attention: D-810 Denver CO 80225

B-9 Funds Available for Payment

Pursuant to section 12 of the Reclamation Project Act of 1939 (43 U.S.C., section 388) funds for payments under this contract shall be made available as provided in this paragraph.

a. Funds are available to finance in the estimated face value of the contract during the current fiscal year. The contractor shall be notified of the amount so reserved.

B-10 <u>Review and Examination</u>

The services being performed under this contract shall be subject to review and examination by the Government. The Government shall have the right to reject inaccurate or substandard services. All rejected services shall be satisfactorily corrected and replaced without cost to the Government.

As soon as practicable after delivery, the materials and data will be reviewed. The contractor shall coordinate his operations to permit a reasonable and rapid review by the Government in order to assure that the accuracy and quality of workmanship complies in all respects with the terms and provisions of this contract. All examinations and review by the Government will be performed in such a manner as not to unnecessarily delay or interfere with the contractor's operations.

If examination indicates lack of compliance with the solicitation requirements the material will be rejected and returned to the contractor for correction. When the material has been corrected and returned by the contractor, it shall be examined to determine whether it complies with the requirements of the solicitation. The material shall be compared with the original submitted copy of the rejected material to determine what revisions have been made. The contracting officer shall decide as to whether and what further review and examinations are required to assure compliance with this contract.

B-11 Risk Damages and Safety and Health

Risk damages - The contractor will be considered an independent entity under this contract, and he will obtain all necessary insurance to protect himself from liability arising out of the contract. The contractor shall assume all risks of injury to persons or property in connection with the performance of work under the contract and shall indemnify and save harmless the Government against all claims, causes of action, cost and expense on account of bodily injury to, and death of persons, and damages to property arising from activities of the contractor in connection with the prosecution of the work.

Safety and health. - In order to protect the life and health of employees and other persons; prevent damage to property, materials, supplies, and equipment; and to avoid work interruptions, the contractor shall in the performance of this contract, comply with the applicable provisions of Federal, State, and municipal safety, health, and sanitation laws and codes.

If the contractor fails or refuses to comply promptly with requirements, the contracting officer may issue an order to suspend all or any part of the work. When satisfactory corrective action is taken, an order to resume work will be issued. No part of the time lost due to any such suspension order shall entitle the contractor to any extension of time for the performance of the contract or to any reimbursement for any excess costs or damages caused thereby.

Records and reports - The contractor shall maintain an accurate record of, and shall report to the contracting officer in the manner and on the forms prescribed by the contracting officer, all causes of death, occupational disease, or injury arising out of or in the course of employment incident to performance of work under this contract.

B-12 Permits -

The contractor shall, without additional expense to the Government, obtain all required licenses and permits that is required for the prosecution of the work.

B-13 <u>Rights of Entry</u> - The contract shall be required to obtain from landowners the necessary right-of-entry for the performance of the required field work. The contractor shall assume all responsibility for and take all precautions to prevent damage to property entered.

B-14 Progress Reports -

The contractor shall submit at the end of each month a letter-type report with appropriate progress chart summarizing work completed, operations in progress, monthly and total employees, hours worked by employees monthly and total, and his schedule of future activities. These reports shall be mailed prepaid to the contracting officer within five (5) calendar days after the end of each reporting period, which is the 25th of the month

INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

1. NEGOTIATION. Offerors are cautioned to review carefully all terms and conditions and specifications of this solicitation prior to submission of quotation. This procurement may be awarded without discussion of proposals received; therefore, each quote should be submitted on the most favorable terms, from a price and technical standpoint, which the Quoter can submit to the Government.

2. SITE VISIT. If the contract involves performance of services on a Government installation, the following provision is applicable:

SITE VISIT

Offerors or quoters are urged and expected to inspect the site where services are to be performed and to satisfy themselves as to all general and local conditions that may affect the cost of performance of the contract, to the extent such information is reasonably obtainable. In no event will a failure to inspect the site constitute grounds for a claim after award of the contract.

3. UNNECESSARILY ELABORATE CONTRACTOR'S PROPOSALS/QUOTATIONS. Unnecessarily elaborate brochures or other presentations beyond that sufficient to present a complete and effective proposal or quotation are not desired and may be construed as an indication of the offeror's or quoter's lack of cost consciousness. Elaborate art work, expensive paper and bindings or expensive visual and other presentation aids are neither necessary nor wanted.

4. RESTRICTIONS ON DISCLOSURE AND USE OF DATA IN PROPOSALS AND QUOTATIONS.

a. A proposal, whether solicited or unsolicited, may include data, such as a technical design or concept or financial and management plan, which the offeror does not want disclosed to the public for any purpose other than evaluation of the proposal. If an offeror wishes so to restrict his proposal, he shall mark the title page with the following legend:

This data, furnished in connection with Request for Proposal/Quotation No._______, shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate the proposal; provided, that if a contract is awarded to this offeror as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the contract. This restriction does not limit the Government's right to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction is contained in Sheets

45.

The offeror shall mark each sheet of data which he wishes to restrict with the following legend:

Use or disclosure of proposal data is subject to the restriction on the title page of this proposal.

b. Proposals received which require restriction of data other than stated in preceding paragraph will not be acceptable and may be returned to the offeror.

5. <u>Late Proposals</u>, <u>Modifications of Proposals</u>, <u>and Withdrawals of</u> Proposals

a. Any proposal received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made, and:

(1) It was sent by registered or certified mail not later than the fifth calendar day prior to the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th or earlier);

(2) It was sent by mail (or telegram if authorized), and it is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation; or

(3) It is the only proposal received.

b. Any modification of a proposal, except a modification resulting from the Contracting Officer's request for "Best and Final" offer, is subject to the same conditions as in a.(1) and a.(2) of this provision.

c. A modification resulting from the Contracting Officer's request for "Best and Final" offer received after the time and date specified in the request will not be considered unless received before award and the late receipt is due solely to mishandling by the Government after receipt at the Government installation.

d. The only acceptable evidence to establish:

(1) The date of mailing of a late proposal or modification sent either by registered or certified mail is the U.S. Postal Service postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. If neither postmark shows a legible date, the proposal or modification shall be deemed to have been mailed late. {The term "postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed on the date of mailing by employees of the U.S. Postal Service. Therefore, offerors should request the postal clerk to place a hand cancellation bull's-eye "postmark" on both the receipt and the envelope or wrapper.}

(2) The time of receipt at the Government installation is the time-date stamp of such installation on the proposal wrapper or other documentary evidence of receipt maintained by the installation.

e. Notwithstanding a., b., and c., of this provision, a late modification of an otherwise successful proposal which makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

f. Proposals may be withdrawn by written or telegraphic notice received at any time prior to award. Proposals may be withdrawn in person by an offeror or his authorized representative, provided his identify is made known and he signs a receipt for the proposal prior to award.

Note: The term "telegram" includes mailgrams.

6. RETENTION OF OFFERS

Offers submitted in response to this solicitation will not be returned but will be retained by the Government for official record.

7. DISPOSITION OF UNCLASSIFIED MATERIAL

Unclassified material and data supplied with this solicitation, including drawings and specifications, shall not be returned to the procuring office but may be disposed of at the discretion of the offeror.

8. ORDER OF PRECEDENCE

In the event of an inconsistency between provisions of this solicitation, the inconsistency shall be resolved by giving precedence in the following order: (a) the Schedule; (b) Terms and Conditions of the solicitation, if any; (c) General Provisions; (d) other provisions of the contract, where attached or incorporated by reference; and (e) the Specifications.

9. SUPPORTING PRICE INFORMATION

A description of the information required to support proposed prices is set forth in attachment No. 1, entitled "Instructions for Preparing Cost Quotations" to be utilized whenever cost information is supplied on Optional Form 60.

10. PRE-AWARD ON SITE EQUAL OPPORTUNITY COMPLIANCE REVIEW

In accordance with regulations of the Office of Federal Contract Compliance, 41 CFR 60.1, an award in the amount of \$1,000,000 or more will not be made under this solicitation unless the bidder and each of his known first-tier subcontractors (to whom he intends to award a subcontract of \$1,000,000 or more) are found, on the basis of a compliance review, to be able to comply with the provisions of the Equal Opportunity clause of this solicitation.

11. CAPABILITY SURVEY

If an offer submitted in response to this solicitation is favorably considered, a survey team <u>may</u> contact your facility to determine your financial and technical ability to perform. Current financial statements and other pertinent data should be available at that time.

INSTRUCTIONS FOR PREPARING COST QUOTATIONS

1. GENERAL:

a. Cost proposals are to be submitted in separate, detachable, and unclassified form so the prospective Contractor's technical proposal can be evaluated solely upon the basis of technical merit, independent of dollar values.

b. Clear, concise, and accurate cost proposals reflect the offeror's financial plan for accomplishing the effort contained in the technical proposal. Failure to provide adequate cost data in an acceptable format may delay consideration of the proposal or may result in the proposal being declared nonresponsive.

2. FORMAT:

a. The prospective contractor must submit this cost proposal on the attached Optional Form 60 together with supporting schedules or in a format in substantially the same detail acceptable to the contracting office.

3. OPTIONAL FORM 60 - CONTRACT PRICING PROPOSAL

a. Each proposal must include all the pertinent details as to cost elements as required by the "Instructions to Offerors" and "Footnotes," inclusive of identification of such support data, through "Exhibit A" which appears on the reverse side of the attached Form 60. Likewise, all specific statements, authorizations, authentications, and other information as mentioned on Form 60 must be completed or supplied as appropriate.

b. Full disclosure of the offeror's cost data and estimating process is required. Detailed supporting schedules and additional data materially aid the Contracting Officer in evaluating proposals.

4. SUPPORTING SCHEDULES:

a. <u>Direct Material</u>: Complete block 1 of Form 60 and add the following: (Contractor must complete Exhibit A on Form 60.)

(1) Extent of subcontracting in scope indicated under Program Organization in Technical Proposal, inclusive of method of selection, complete basis of estimation of cost and assurance that further analysis and negotiation of the subcontractors' price proposals will be made. Cost proposal must also list subcontractors solicited or contemplated to be solicited. Copies of all cost proposals received from subcontractors shall be attached to your proposal. Indicate type of contract contemplated to be awarded to successful subcontractors, i.e., firm fixed-price, etc. Furthermore, include an indication that the subcontracted work is to be sole source or multi-source. The award of the prime contract will be on a firm, fixedprice basis.

(2) Tooling, test equipment, computer rentals, and similar items shall be itemized separately under block 9, Other Direct Costs, or included in other appropriate cost elements set forth in Form 60. b. <u>Direct Labor</u>: Complete block 3 of Form 60 and include the following: (Contractor must complete Exhibit A on Form 60.)

(1) A complete manning chart by labor category, task, and (at least) monthly period accounting for the total hours of all types of labor proposed, with rates of compensation as applicable exclusive of any overtime premium and/or shift differential. The same information without <u>rates or total cost</u> shall be included in the tachnical proposal. An example of a manning chart is included, "Monthly Manpower Loading Summary Sheet." If the offeror has an established direct labor manning chart that gives as a minimum the same data called for on the attached manpower loading sheet, such a chart may be submitted in lieu thereof.

(2) If the proposed direct labor rates represent other than current weighted average experienced rates for each category, the proposed rates shall be further substantiated and fully justified.

(3) State whether any additional direct labor (new hires) will be required during the performance period applicable to this procurement. If so, state the number required and identify this labor to the manning chart under (1) above.

c. <u>Labor Overhead and GAE</u>: Complete block 4 of Form 60 in <u>strict</u> compliance with footnote 3 on the reverse side of the Form 60.

d. Travel Costs: Complete block 7 and Exhibit A of Form 60.

(1) Attach schedule indicating estimated number of man-trips required, destinations, and number of days subsistence per trip for each destination. Identify and support any other special transportation costs attributable to the performance of this particular project or procurement.

e. Consultants: Complete block 8.

(1) This element of cost should be explained by indicating the specific project area or problems in which such service is to be used. Identify the contemplated consultants, including a brief biographical sketch of academic and experience qualifications. State the number of days of such service estimated to be required and the consultant's quoted rate per day. State the basis of such rate and whether the consultant has received this rate in performing similar services for other contractors under Government contracts.

f. Other Direct Costs: Complete block 9 and Exhibit A of Form 60.

(1) Include in this category all other direct costs not listed individually above.

(2) It should be emphasized that computer usage and/or Electronic Data Processing costs must be separately listed. Be sure to indicate manufacturer, trade name, peripheral equipment, amount of time required, whether

50.

the time will be of continuous (one time) nature or sporadic over the duration of the work effort and whether the computer system is owned, leased, or to be subcontracted. A brief statement regarding how such equipment will be utilized shall also be included.

g. In addition to the above, each cost proposal should indicate the percentage allocation of the total cost in relation to each requirement outlined under "Scope of Work".

INSTRUCTIONS FOR PREPARING TECHNICAL PROPOSALS

1. GENERAL

a. Inasmich as your Technical Proposal will primarily describe the capability of your organization to participate in this program, it should be specific and complete in every detail. The proposal should be prepared simply and economically, providing straight-forward, concise delineation of capabilities to perform satisfactorily the contract being sought. The proposal should therefore be practical, legible, clear, and coherent. In order that evaluation may be accomplished strictly on the merit of the materials submitted, <u>no dollar costs</u> are to be included in your Technical Proposal, except as set forth in paragraph 2.a(5)(a)<u>3</u>. If deemed necessary to provide clarity, <u>estimated man-hour</u> figures only will be quoted, with no indication of the cost of said man-hours.

b. The proposal shall contain an outline of the proposed lines of investigation, method of approach to the problem, any recommended changes to the technical exhibit, the phases or steps into which this project might logically be divided, estimated time required to complete each phase or step, and any other information considered pertinent to the problem. The proposal shall not merely offer to conduct an investigation in accordance with the technical exhibit but shall outline the actual investigation proposed as specifically as possible. Repeating the exhibit without sufficient elaboration will not be acceptable. The technical exhibit reflects the problems and objectives of the program under consideration and on occasion some of the possible approaches to the problem as recognized by this agency. Unless otherwise specified, the prospective Contractor is not limited to the suggested approaches for equal or even preferred consideration. However, any deviations must be fully substantiated in the proposal.

2. FORMAT AND SPECIFIC CONTENT:

a. To aid in the evaluation of the proposals, it is desired that all proposals follow the same general format. Therefore, your proposal shall as a minimum contain the information specified below in accordance with the following general format:

- (1) Table of Contents
- (2) List of Tables and Drawings
- (3) Short Introduction and Summary

(a) This section shall contain an outline of difficulties of the problem and delineate the general approach toward solving it.

(4) Technical Discussion of Approaches

(a) This section shall contain the major portion of the technical proposal. It should be presented in as much detail as possible and contain as a minimum the following:

1. Specific statment of the problem. Major difficulties anticipated.

2. Principles and techniques which may be applied in the solution of the problem, and evaluation of the various methods considered with substantiation of those selected. Indicate degree of success expected.

<u>3.</u> Complete detailed statement of solution, including preliminary design layout, sketches, and other information indicating configuration; and functions of components as applicable.

4. Specific statement of any interpretations, deviations, and exceptions to the exhibit.

(b) One technical approach must be selected. Alternate approaches may be presented but must represent a complete and singular alternate technical proposal.

(5) Program Organization

(a) This section should show the relationship of this program to the overall company structure and the function and responsibilities of major subcontractors and contain as a minimum the following:

<u>1</u>. General organizational experience and background of bidder/ offeror on similar projects. Available specifications, photographs, technical descriptions or other data are welcomed, and may be submitted to support the proposal.

2. Estimated extent of subcontracting anticipated together with a list of items or effort to be subcontracted.

<u>3.</u> Itemized list of equipment and materials to be purchased. Point out their applicability to the program and substantiate their need. Prospective contractors must include a breakdown of materials with materials cost, and a breakdown of man-hours, without costs, in their technical proposals.

<u>4</u>. Estimate of travel required - include origin, destination, and numbers of trips. Substantiate purpose of and need for travel proposed.

(6) Personnel Qualifications

(a) This section shall identify specific personnel to be assigned for direct work on the project and as direct technical supervisors, plus:

Acch #2

<u>l.</u> Education, background, accomplishments, and other pertinent information concerning personnel specified.

2. Estimated man-hours each individual will be used on this project. (No costs of these man-hours are to be quoted in the technical proposal).

(b) Also, identify specific additional engineering personnel required for full employment, subcontract, or consultation with source from which they will be obtained. Statement of assurance that proposed additional personnel will be available for work on this contract as specified in the proposal. Alternate personnel sources should be listed if assurances of availability cannot be stated. Include full resume of all additional personnel listed.

(7) Facilities and Equipment Data

(a) This section should include a statement of available plant, laboratory, equipment, and test facilities proposed for use on this project.

(b) Specific statement of additional plant, equipment and test facilities required for this project. Indicate applicability to program and substantiate their need. Indicate to what extent the program can be accomplished without them. Consider alternate sources, substitutions. etc.

(8) Program Schedules

(a) This section should include the period of performance, proposed duration of project in months, by phases or steps, if applicable, and delivery schedules of all items. Include time for preparation and submission of required reports.

(b) Hourly time estimates by labor classes: (No costs for these time estimates are to be included in the technical proposal).

(9) Supporting Data and Other Information

(a) This section should consist of specific concurrence in requirements for reports.

(b) List of all Government contracts in this and related fields held in the past, including cost of contract, title, sponsoring agency, and contract number.

(c) Any other pertinent information which will aid in evaluation of the proposal should be included.

(d) Offerors are required to include one or more studies or reports prepared under previous contracts covering similar efforts in the geographic are of this study. These studies or reports will be considered in deciding upon the selected contractor and will be returned to the offeror if so requested. (See item 1 of the Technical Evaluation Criteria.) Offerors should provide the name and address of the organization for which each study or report was prepared.

EVALUATION CRITERIA

1.0 Proposal Evaluation Elements

The proposals will be evaluated using the following criteria in decending weight:

1.1 Understanding of the scope of work and technical merits of the approach to perform the study.

a. Is the concept of the scope of work and each work item understood?

b. Are proposed solutions to each work item complete, technically sound, and appropriate?

1.2 Qualifications of assigned personnel, the firm, and man-hours committed:

a. Are assigned personnel qualified in terms of education and experience in the technical fields of geology, seismology, and tectonics and have experience in performing similar studies?

b. Do personnel have a record of past meaningful accomplishment appropriate to the statement of work?

c. Will named qualified key personnel perform substantial amounts of the work?

d. Does the firm have a record of significant responsibility in previous or ongoing similar work?

e. Are total man-hours and distribution of man-hours consistent with the estimate?

1.3. Completeness and compliance with all elements of the scope of work and the proposed schedule for performance.

a. Are all scope of work items considered and the proposal presented in a clear and logical pattern?

b. Are the details of the study, sequence for planned operations, and time allowed for the phases of the work adequate for this study?

1.4 Management:

Is the offeror's management plan presented in well-defined lines of authority, responsibility, and communication?

2.0 Evaluation Rating

Each element of the evaluation criteria will be based on a rating of 1-10 points using the following schedule:

2.1 Above normal: 10

A proposal element which has a high probability of exceeding expected RFP (Request for Proposal) requirements.

2.2 Normal: 8 . 7 6

A proposal element which, in all probability, will meet the requirements established by the RFP.

2.3 Below normal: 5

3

A proposal element which may fail to meet the stated requirements but has correction potential.

2.4 Unacceptable: 2

A proposal element which cannot be expected to meet the stated requirements and drastic revision if necessary for correction.

3.0 Selection

The evaluation will be used to select the firms which are most likely to be able to satisfactorily perform the tasks in the given scope of work. When these candidate firms are selected, they will be recommended to the Contracting Officer for consideration. Upon his approval, they may be requested to meet with the technical evaluation team members to clarify technical items. After this meeting, a period of 14 days may be allowed for submission of a final best offer if approved to do so by the Contracting Officer.

4.0 Instructions to Offerors for Preparation of Technical Proposals

No special instructions are required.

5.0 Identification of Internal Instructions and Procedures for Evaluation of Technical Proposals:

The proposals will be numerically rated using the following format:

(1) Evaluation element	(2) Numerical rating (1 - 10)	(3) Weight	(4) Col. 2 x Col. 3 = weighted rating
1 2 3		3.0 3.0 3.0 1.0	

100 = maximum total weighted rating

57.

STATEMENT OF WORK

SEISMOTECTONIC STUDY FOR THEODORE ROOSEVELT, STEWART MOUNTAIN, HORSE MESA, MORMON FLAT, BARTLETT, AND HORSESHOE DAMS, AND ORME, NEW WADDELL, AND BUTTES DAMSITES

1.0 Summary

It is required that a study of the seismic potential at Theodore Roosevelt, Stewart Mountain, Horse Mesa, Mormon Flat, Bartlett, and Horseshoe Dams, and Orme, New Waddell, and Buttes damsites and vicinities be performed and reported.

Work shall include the evaluation of existing geologic and seismic information and the performance of studies to specify:

1.1 Earthquake magnitude versus frequency relationships.

1.2 Faults near the site with known or suspected Quaternary displacement, whose location is such that future displacement poses a hazard to the existing or proposed structure, and the age of displacement and recurrence rate if applicable.

1.3 MCE (Maximum Credible Earthquake) and ground motion characteristics for each potential source area.

1.4 Seismically induced phenomena.

2.0 Background and Objectives

A thorough study of seismic potential at the existing and proposed dams is required for safety evaluations of existing structures and as input to design and modification criteria.

2.1 Theodore Roosevelt Dam is located at the confluence of Tonto Creek and the Salt River about 60 miles northeast of Phoenix. The masonry structure completed in 1911 is 280 feet high with a crest length of 723 feet and a conservation storage capacity of 1,381,000 acre-feet.

2.2 Stewart Mountain Dam is located on the Salt River about 30 miles northeast of Phoenix. The concrete gravity arch structure was completed in 1930 and is 207 feet high with a crest length of 583 feet. The reservoir storage capacity is 70,000 acre-feet. 2.3 Horse Mesa Dam is located on the Salt River 45 miles northeast of Phoenix. Completed in 1927, the concrete gravity arch is 265 feet high with a crest length of 540 feet. The reservoir storage capacity is 245,000 acre-feet.

2.4 Mormon Flat Dam is located about 40 miles northeast of Phoenix on the Salt River. Completed in 1925, the concrete gravity arch structure is 210 feet high with a crest length of 416 feet. The reservoir has a 63,000 acre-foot capacity.

2.5 Bartlett Dam is located about 35 miles north of Phoenix on the Verde River. Completed in 1939, the multiple barrel structure is 287 feet high with a crest length of 800 feet. The reservoir has a 200,000 acrefoot capacity.

2.6 Horseshoe Dam, an earth structure, is located on the Verde River about 40 miles north of Phoenix.

2.7 Proposed Orme Dam (also known as the Confluence Damsite) is located at the confluence of the Salt and Verde Rivers, approximately 25 miles northeast of Phoenix. The new reservoir is planned to have a storage capacity of 440,000 acre-feet. The structure will be either rockfill and earth or earth-concrete composite.

2.8 Proposed New Waddell Dam is located on the Agua Fria River about 1/4 mile below the existing Waddell Dam, approximately 30 miles northwest of Phoenix. The new reservoir is planned to have a storage capacity of 400,000 acre-feet. The structure will be either rockfill and earth or earth-concrete composite.

2.9 Proposed Buttes Dam is located on the Gila River 13 miles east of Florence, Arizona, or approximately 50 miles southeast of Phoenix. The reservoir is planned to have a storage capacity of 366,000 acre-feet. The structure will be earthfill.

3.0 Contractor Requirements

It is required that a study of the seismic potential at the sites listed in 2.0 above be performed. The work to be performed shall include but not necessarily be limited to:

3.1 Evaluate all applicable existing, geologic, and seismic information and perform reconnaissance level field investigations. These field investigations may include limited field mapping, remote sensing, or

geophysical investigations. It is not expected that other than a reconnaissance field investigations program will be required to perform the work. However, if the contractor determines that more extensive field exploration is necessary, within 42 days after award of the contract and prior to initiation of the more extensive field exploration, a complete summary of the initial contract work results and thorough justification and description of the proposed more extensive exploration program shall be submitted for the Contracting Officer's approval. This interim summary and justification shall consist of an oral presentation and draft report with a final written report to follow within 7 days. The more extensive exploration program will either be approved and finalized or rejected at the time of the verbal presentation or within 7 days of the presentation. The field exploration program cost rates will be negotiated prior to award of the contract according to the schedule defined in part 5.0. If the field program is rejected, the contractor must provide items listed in paragraphs 3.2, below, based on reconnaissance level field investigations. The contractor shall not begin the exploration program until the program justification has been approved in writing by the Contracting Officer.

The study areas are situated both on private and public property. Access to the study areas for contractor's personnel will be provided by the Government. If extensive field exploration is approved, such as that including the excavation of trenches, the contractor shall obtain the required permits from the landowners and shall be liable for all damages to private property with no liability to the Government for such damages.

3.2 Utilize data obtained from the above work items and other information to provide the following:

a. Develop earthquake magnitude versus frequency of occurrence relationships for each tectonic structure or source area significant to the sites.

b. Identify faults near the sites with known or suspected Quaternary displacement whose location is such that future displacement poses a hazard to the structures. Determine the age of displacement and recurrence rate if applicable.

c. Determine appropriate MCE's for each source area significant to the sites. An MCE is defined as the largest earthquake that is capable of being produced from a source, structure, or region under the currently known tectonic framework. It is a rational and believable event which can be supported by all known geologic and seismologic data. An MCE is determined by judgment considering the geologic evidence of past movement and the recorded seismic history of the area. All determinations shall be supported by a presentation of data and information utilized. d. Determine for each site (at the existing or proposed dam foundation) ground motion characteristics of controlling local and distant MCE's. The characteristics shall include peak velocity, peak acceleration, significant duration, and frequency content as defined by a response spectrum.

e. Determine historical and/or synthetic accelerograms satisfying characteristics in "d."

f. Identify seismically induced phenomena which may pose significant potential hazards to facilities such as surface faulting, ground tilt, subsidence, slope instability, liquefaction, and reservoir seiche.

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INSTRUCTIONS TO OFFERORS

1. The purpose of this form is to provide a standard format by which the offeror submits to the Government a summary of incurred and estimated costs (and attached supporting information) suitable for detailed review and analysis. Prior to the award of a contract resulting from this proposal the offeror shall, under the conditions stated in FPR 1-3.807-3 be required to submit a Certificate of Current Cost or Pricing Data (See FPR 1-3.807-3(h) and 1-3.807-4).

2. In addition to the specific information required by this form, the offeror is expected, in good faith, to incorporate in and submit with this form any additional data, supporting schedules, or substantiation which are reasonably required for the conduct of an appropriate review and analysis in the light of the specific facts of this procurement. For effective negotiations, it is essential that there be a clear understanding of:

a. The existing, verifiable data.

b. The judgmental factors applied in projecting from known data to the estimate, and

c. The contingencies used by the offeror in his proposed price.

In short, the offeror's estimating process itself needs to be disclosed.

3. When attachment of supporting cost or pricing data to this form is impracticable, the data will be described (with schedules as appropriate), and made available to the contracting officer or his representative upon request.

4. The formats for the "Cost Elements" and the "Proposed Contract Estimate" are not intended as rigid requirements. These may be presented in different format with the prior approval of the Contracting Officer if required for more effective and efficient presentation. In all other respects this form will be completed and submitted without change.

5. By submission of this proposal the offeror grants to the Contracting Officer, or his authorized representative, the right to examine, for the purpose of verifying the cost or pricing data submitted, those books, records, documents and other supporting data which will permit adequate evaluation of such cost or pricing data, along with the computations and projections used therein. This right may be exercised in connection with any negotiations prior to contract award.

FOOTNOTES

1 Enter in this column those necessary and reasonable costs which in the judgment of the offeror will properly be incurred in the efficient performance of the contract. When any of the costs in this column have already been incurred (e.g., on a letter contract or change order), describe them on an attached supporting schedule. Identify all sales and transfers between your plants, divisions, or organizations under a common control, which are included at other than the lower of cost to the original transferror or current market price.

2 When space in addition to that available in Exhibit A is required, attack separate pages as necessary and identify in this "Reference" column the attachment in which the information supporting the specific cost element may be found. No standard format is prescribed; however, the cost or pricing data must be accurate, complete and current, and the judgment factors used in projecting from the data to the estimates must be stated in sufficient detail to enable the Contracting Officer to evaluate the proposal. For example, provide the basis used for pricing materials such as by vendor quotations, shop estimates, or invoice prices; the reason for use of overhead rates which depart significantly from experienced rates (reduced volume, a planned major re-arrangement, etc.); or justification for an increase in labor rates (anticipated wage and salary increases, etc.). Identify and explain any contingencies which are included in the proposed price, such as anticipated costs of rejects and defective work, or anticipated technical difficulties. 3 Indicate the rates used and provide an appropriate explanation. Where agreement has been reached with Government representatives on the use of forward pricing rates, describe the nature of the agreement. Provide the method of computation and application of your overhead expense, including cost breakdown and showing trends and budgetary data as necessary to provide a basis for evaluation of the reasonableness of proposed rates.

4 If the total cost entered here is in excess of \$250, provide on a separate page the following information on each separate item of royalty or license fee: name and address of licensor; date of license agreement; patent numbers, patent application serial numbers, or other basis on which the royalty is payable; brief description, including any part or model number's of each contract item or component on which the royalty is payable; percentage or dollar rate of royalty per unit; unit price of contract item; number of units; and total dollar amount of royalties. In addition, if specifically requested by the contracting officer, a copy of the current license agreement and identification of applicable claims of specific patents shall be provided.

5 Provide a list of principal items within each category indicating known or anticipated source, quantity, unit price, competition obtained, and basis of establishing source and reasonableness of cost.

CONTINUATION OF EXHIBIT A - SUPPORTING SCHEDULE AND REPLIES TO QUESTIONS II AND V.

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