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Solicitation for Cooperative  
Agreement Proposals (SCAP)

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Number DE-SCO7-85ID12580

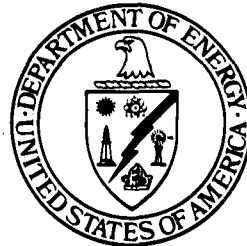
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For Cascades Deep Thermal  
Gradient Drilling

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Closing Date: 4/29/85





## Department of Energy

Idaho Operations Office  
550 Second Street  
Idaho Falls, Idaho 83401

March 15, 1985

SOLICITATION FOR COOPERATIVE AGREEMENT PROPOSALS (SCAP) NO. DE-SC07-85ID12580 FOR THE DRILLING OF DEEP THERMAL GRADIENT HOLES IN THE CASCADES REGION OF WASHINGTON, OREGON, AND CALIFORNIA.

### Prospective Proposers:

The Department of Energy (DOE), Idaho Operations Office (ID), desires to receive and consider for support proposals to enter into Cooperative Agreements for the drilling of 3,000 feet deep or deeper gradient holes in the Cascades Region of Washington, Oregon, and California. Section A of this SCAP contains the detailed research objectives for this project.

Prospective proposers should be aware that this solicitation is different from previous SCAP No. DE-SC07-85ID12555. While similarities exist between SCAP No. DE-SC07-85ID12555 and this SCAP, proposals must be responsive only to the requirements contained in this solicitation.

To qualify for consideration under this SCAP, the proposals must meet the following qualification criteria. Prior to the detailed evaluation, each proposal will undergo a preliminary review to assure the qualification criteria are satisfied. Proposals which do not meet the qualification criteria will not receive a comprehensive evaluation and will be eliminated from further consideration.

- A. The proposed site must be located within the Cascades volcanic region of the United States as delineated by Figure 1 (page 3).
- B. The proposal must include a cost-share plan in which DOE's share shall not exceed 50 percent.
- C. The proposed hole must be a minimum of 3000 feet deep.
- D. The proposer must agree to complete the hole and allow DOE access to the hole for data acquisition.

Proposals submitted in response to this SCAP may include technical data and other data, including trade secrets and/or privileged or confidential commercial or financial information, which the proposer does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation. To protect such data the proposer must specifically identify each page including each line or paragraph thereof containing the data to be protected (see Section E., paragraph 4.(b), pages 16-17).

Individuals, educational institutions, states, Indian tribes, non-profits, commercial, or other private entities who wish to have their proposed project considered by DOE for support are invited to respond to this SCAP. Proposals from Federal agencies and/or laboratories owned, operated, or under the cognizance of the Federal Government will not be considered for selection and should not be submitted.

The Service Contract Act applies to this activity. Minimum wage rate determinations are contained in Section J, Attachment No. 9.

Although proposals must be consistent with this SCAP, it is DOE policy to discourage "brochuremanship" and unnecessarily costly proposal preparation. This SCAP does not commit the Government to pay any costs incurred in the preparation or submission of any proposal or to procure or contract for any services.

DOE anticipates \$1,000,000 in the fiscal year 1985 budget for this solicitation which will allow DOE to cost-share on the drilling of up to eight thermal gradient holes.

It is anticipated that a cooperative agreement resulting from this SCAP will be executed in July 1985, and that the period of performance will be approximately 2 years. Proposers selected for negotiation must provide to DOE proof of right of access to drill as proposed at the proposed drill site prior to award of an agreement.

A preproposal conference will be held on April 9, 1985 at the Los Robles Lodge, Santa Rosa, California. Questions should be submitted in writing to Elizabeth M. Hyster at the same address as shown below on or before April 1, 1985. If at all possible, questions should be worded so that they may be answered by a simple yes or no. Answers will be issued in writing by amendment to this SCAP. Potential proposers desiring to attend the preproposal conference should submit the attached form. This form should also be used to acknowledge receipt of the SCAP and to indicate if a proposal will be submitted. Only those returning the attached form and indicating that a proposal will be submitted will be provided copies of any amendments to the SCAP. Please return the attached form as soon as possible.

The point of contact for this SCAP is Elizabeth M. Hyster, telephone no. 208/526-1229.

It is expected that this SCAP will result in up to eight cooperative agreements. No profit or fee shall be paid to the Participant. Proposals should be prepared in accordance with the instructions in Section E of this SCAP. Ten (10) copies of the proposal should be addressed to:

E. M. Hyster, Cascades SEP  
U.S. Department of Energy  
Idaho Operations Office  
550 Second Street - Room 119  
Idaho Falls, ID 83401

Proposals must be received at the above address no later than 4:00 p.m. Mountain Daylight Time, April 29, 1985. Late proposals, modifications of proposals, and withdrawals of proposals will be handled in accordance with the DOE Financial Assistance Rule 600.13, which is attached as Section J, Attachment No. 5. To facilitate handling, please place the following identification on the outside of the package containing your proposal.

Proposal for Cascades Deep Thermal Gradient Drilling - To Be Opened by Addressee Only

Notice of Possible Availability of Loans for Bid Proposal Preparation by Minority Business Enterprises Seeking DOE Contracts and Assistance

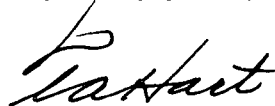
Section 211(e)(1) of the DOE Act (Public Law 95-91 as amended by Public Law 95-619) authorizes the Department of Energy (DOE) to provide financial assistance to minority business enterprises to assist them in their efforts to participate in DOE acquisition and assistance programs. Financial assistance is in the form of direct loans to enable the preparation of bids or proposals for DOE contracts and assistance awards, subcontracts with DOE Operating Contractors, and contracts with subcontractors of DOE Operating Contractors. The loans are limited to 75 percent of the costs involved. Availability of these loans is subject to annual appropriation of funds and the remaining availability of funds from such appropriations.

DOE does not warrant that such assistance can be made available in sufficient time to prepare a proposal for this solicitation. Note, also, as a possible way to save time in the future, that the DOE loan program includes provisions for a preliminary review in advance of a specific loan request.

Information regarding loan availability, eligibility criteria, and how to apply may be obtained from:

San Francisco Operations Office, USDOE  
1333 Broadway  
Oakland, CA 94612  
Attn: Minority Loan Program Office  
(415) 273-6403

Very truly yours,



Twila A. Hart  
Contracting Officer



ATTACHMENT

(See Page 2 of the Transmittal Letter)

Firm Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone (w/area code): \_\_\_\_\_

Attn: \_\_\_\_\_

INTENT TO PROPOSE

Yes  No  I intend to submit a proposal in response to this SCAP.  
Affirmative response is required to receive addendums and letters answering questions pertaining to this SCAP.

PREPROPOSAL CONFERENCE

Convene at: Los Robles Lodge  
Santa Rosa, California  
1:30 p.m., April 9, 1985

Representatives Attending:

	<u>Name</u>	<u>Title</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____

During the preproposal conference, each attendee will be permitted to submit written questions. The tentative agenda is as follows:

April 9, 1985

- 1:30 p.m. to 2:00 p.m. Registration
- 2:00 p.m. to 2:30 p.m. SEP Procedures
- 2:30 p.m. to 3:00 p.m. DOE Administrative Practices
- 3:00 p.m. to 3:30 p.m. Description of the Solicitation
- 3:30 p.m. to 4:00 p.m. Break
- 4:00 p.m. to 5:30 p.m. Written Questions and Answers

SCAP NO. DE-SC07-85ID12580  
 CASCADES DEEP THERMAL GRADIENT DRILLING

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SECTION ADESCRIPTION OF PROPOSED PROJECT1. Background

The Department of Energy (DOE), Division of Geothermal and Hydropower Technologies (DGHT), is mandated to support research and development to identify, evaluate, extract, and utilize geothermal resources as an alternative energy source. As a part of this overall effort, DGHT is initiating through this solicitation a new program designed to support industry efforts in the Cascades volcanic region of California, Oregon, and Washington.

The Cascade volcanic region has long been suspected to contain considerable geothermal potential, as evidenced by recent volcanism and other thermal expressions. There are few known surface manifestations of geothermal energy in spite of the obvious occurrence of heat sources. One possible explanation is that the downward percolation of the extensive regional cold ground-water system forms a so-called "rain curtain" that suppresses surface evidence of underlying hydrothermal systems. This hypothesis can be tested only by drilling below the rain curtain. Resource characterization has been conducted by the U.S. Geological Survey (USGS) and by the states involved--Washington, Oregon, and California and now more recently by industry. However, there have been few wells drilled in the Cascades region to a sufficient depth to properly evaluate the temperature and hydrological conditions beneath the cold water zone. There is general agreement within the geothermal scientific community that there is a great need for characterization identification of the deeper hydrothermal regime in order to further define the geothermal potential of the Cascades volcanic environment.

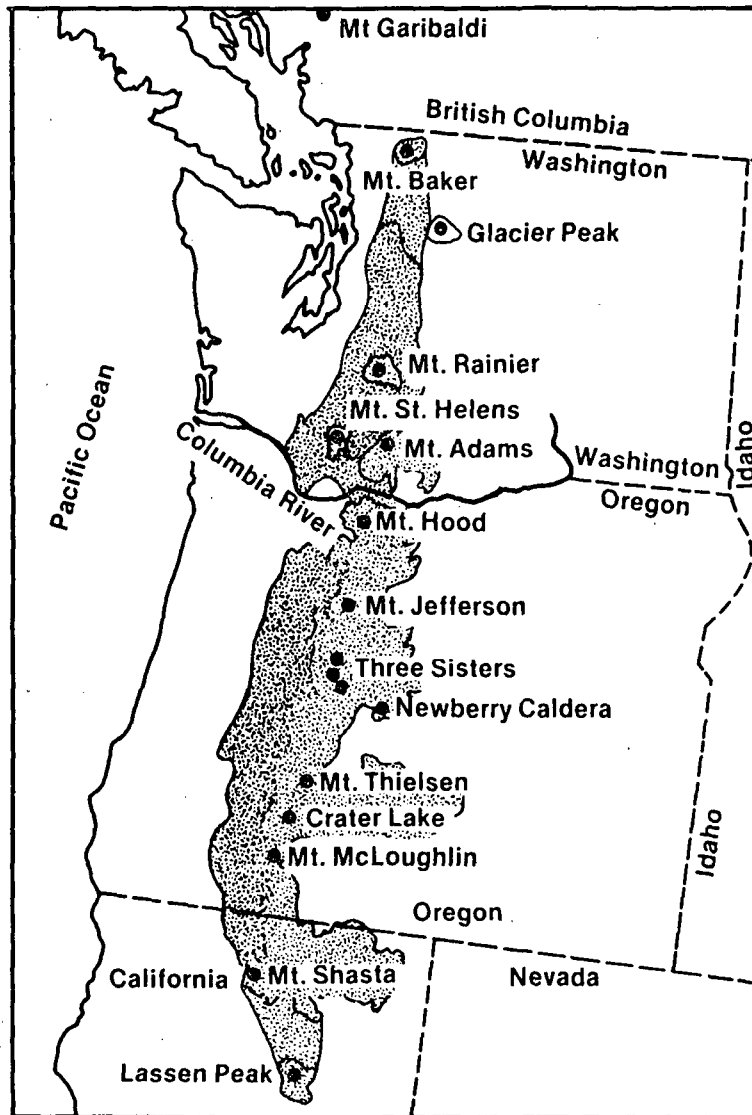
DOE anticipates \$1,000,000 in the FY-1985 budget for this solicitation which will allow DOE to cost-share on the drilling of up to eight deep thermal gradient holes. It is DOE's aim to select sites which will provide the greatest amount of information for resource characterization and which will meet the research objectives of DOE.

2. Project Description

DOE's objectives are 1) to gather data to characterize the deep hydrothermal resource of the Cascades volcanic region and 2) to transfer this data to the public in order to stimulate further development of hydrothermal resources.

The Participant will drill a deep thermal gradient hole at a location within the Cascades region defined by Figure 1. (page 3). The hole to be drilled will be a minimum of 3000 feet in depth. The Participant will perform data collection including well logs, rock samples, and, if appropriate, fluid samples. The Participant will be responsible for any required permits, leases, environmental evaluations, or approvals required by governmental agencies for performance of the project. The Participant will complete and maintain the hole and allow DOE access to the hole to collect data. During the DOE access period, the Participant may perform additional data collection and tests at its own expense on a non-interference basis. The Participant will be responsible for plugging and abandoning the hole. The Participant will be required to submit to DOE several project plans and status reports during performance. The Participant will provide the data collected under the project to DOE. Data and information gathered under this project will be made public by DOE.

DOE will cost-share up to 50 percent of the incurred allowable cost of drilling and associated data collection. DOE's contribution will also be subject to a maximum amount which will be negotiated prior to award. In no event will DOE exceed its "up to 50 percent" cost-share.



SECTION B

QUALIFICATION CRITERIA

To qualify for consideration under this SCAP, the proposer must meet the following qualification criteria. Prior to the detailed evaluation, each proposal will undergo a preliminary review to assure the qualification criteria are satisfied. Proposals which do not meet the qualification criteria will not receive a comprehensive evaluation and will be eliminated from further consideration.

- A. The proposed site must be located within the Cascades volcanic region of the United States as delineated by Figure 1 (page 3).
- B. The proposal must include a cost-share plan in which DOE's share shall not exceed 50 percent.
- C. The proposed hole must be a minimum of 3000 feet deep.
- D. The proposer must agree to complete the hole and allow DOE access to the hole for data acquisition.

SECTION C  
EVALUATION CRITERIA

Proposals which meet the Qualification Criteria given in Section B will undergo a comprehensive evaluation in accordance with the criteria listed below and considering any relevant public information. The evaluation criteria parallel the information required in the Volume I and Volume II Proposals as outlined in Section E. This information forms the basis for evaluation. The criteria are listed in descending order of importance within each volume.

Volume I Criteria (Criteria 1, 2 and 3) are weighted 4 times as great as Volume II Criteria (Criterion 4). Criterion 1 is approximately 2/5 greater than Criterion 2. Criterion 2 is 1/4 greater than either Criteria 3 or 4. Criteria 3 and 4 are equal. Subcriterion 1.a is slightly more than 1/3 of Criterion 1. Subcriterion 1.b. equals Subcriterion 1.a. Subcriterion 1.c. is 1/5 less than either 1.a. or 1.b. Subcriterion 2.a. is one-half of the weight of Criterion 2. Subcriterion 2.b. is 1/3 of the weight of Criterion 2. Subcriterion 2.c. is 1/5 of the weight of Criterion 2. Subcriteria 3.a., 3.b., 3.c., and 3.d. are equal and each 1/4 of Criterion 3. Subcriterion 4.a. is 5/8 of the weight of Criteria 4. and Subcriterion 4.b. is 3/8 of the weight of Criterion 4.

VOLUME I - EVALUATION CRITERIA

Criterion 1: Resource Potential - The resource potential will be evaluated based on the data, technical analysis, and rationale provided considering the following factors:

- a. The potential that the proposed depth of the thermal gradient hole will provide for evaluation of the deep subsurface hydrothermal system.
- b. The potential that the hole and its proposed location will provide data which will expand or enhance the present knowledge of the geohydrology and geothermal resource potential within the Cascades volcanic region.
- c. The amount of surface and subsurface geoscience data contained in the proposal which is of high quality and relevant to evaluating the geothermal potential of the Cascades volcanic region.

Criterion 2: Technical Approach to the Project

- a. The content, adequacy, and completeness of drilling and data collection plans.
- b. The quality, type, and quantity of any additional data to be gathered during the project.



- c. The suitability of planned hole completion and maintenance for data collection.

Criterion 3: Business Approach to the Project

- a. Extent of the proposer's experience, including that of identified subcontractors (including consultants), in thermal gradient drilling, data collection and business related areas.
- b. The completeness and adequacy of the proposed management plan.
- c. Qualifications of proposed key personnel, including identified subcontractor personnel, to be assigned to this project evidenced by education, experience, specialized skills and accomplishments demonstrating the managerial, operational, and technical capabilities to carry out the Statement of Work.
- d. Institutional considerations will be evaluated according to the completeness and adequacy of the identified areas of concern, the proposed solutions, and their potential impact on the success of the project.

VOLUME II - EVALUATION CRITERIA

Criterion 4: Financial Considerations

- a. Project Financial Plan - The project financial plan will be evaluated for the ability of the proposer to commit resources (its own or others) to finance the non-DOE share of the entire project and the adequacy of the proposer's financial condition.
- b. Cost-Share Plan - The plan for cost-sharing will be evaluated on the percentage in excess of 50 percent of cost to be borne by the proposer.

Project Cost/Budget Summary - This information should be provided for the proposed project. Reasonableness of cost and probable cost to the Government will be considered. While the project cost/budget summary will not be point scored, the proposed costs will be considered as an indicator of the offeror's understanding of the job. The question to be determined by the Source Selection Official is whether an otherwise better proposal is worth the apparent cost difference.

SECTION D

PROGRAM POLICY AND PREFERENCE FACTORS

The Source Selection Official may make selections for negotiations and subsequent awards in a manner that will further the objective of the DOE, considering the following factors:

1. The variety of projects in terms of geographic location;
2. Total funds available considering the funds required by a particular proposal.
3. The variety of projects which provide the greatest potential for data to enhance characterization of the Cascades hydrothermal resource.
4. Cost Considerations - The proposed cost is a function of the management approach, the technical approach, the manpower, the facilities, the organization, the uncertainties of the work, the proposer's competitive strategy and the economy. The panel will determine its own estimate of what it will probably cost the Government taking into account relevant data available. All other considerations being equal, total cost to the Government may be used in the final selection.

SECTION EINSTRUCTIONS, NOTICES1. General Conditions

The proposals will be evaluated in accordance with the applicable DOE Financial Assistance Rules: Code of Federal Regulations Title 10, Chapter II, Subchapter H, Part 600, Subparagraph C., and the criteria and considerations set forth in this section of the SCAP and the DOE Source Evaluation Board Handbook (DOE/MA-0154). To obtain copies see Section J, Attachment 4. In conducting this evaluation, the Government may utilize assistance and advice from qualified personnel from other Federal and State agencies, universities, and industry. Proposers are therefore requested to state on the cover sheet of their Technical Proposal if they do not consent to an evaluation by such non-Government personnel. The proposers are further advised that DOE may be unable to give full consideration to a proposal submitted without such consent. Information contained in the proposals shall be treated in accordance with the policies and procedures set forth in paragraph 600.18 of the DOE Financial Assistance Rules, as summarized in paragraphs 4.b. and c. of this section.

DOE reserves the right to support or not to support any or all proposals. All proposers will be notified in writing of the action taken on their proposals. Proposers should allow approximately 90 days after the closing date for this notification. Status of any proposal during the evaluation and selection process will not be discussed with proposers.

2. Preliminary Review

Prior to making a comprehensive evaluation of the proposal, a preliminary review will be made to determine that the proposal has met the Qualification Criteria in Section B.

3. Instructions for Preparation of Proposals

Each submission in response to this SCAP should be prepared in two separate and detached volumes: Volume I and Volume II. To facilitate an orderly and expedient review of proposals, proposers are requested to follow the forms given below for Volumes I and II. Each volume should be written as a "stand-alone" document. Because separate teams of reviewers may review each volume, all pertinent information should be included to make each volume entirely understandable without reference to the other volume. It is recommended that the total number of pages for the two volumes not exceed 200 pages. Proposals should be as short and concise as possible consistent with being complete.

VOLUME I

- (1) Cover Page of Volume I - Section J, Attachment No. 1, provides the specific information which should appear on the cover page to Volume I. One of the following organizational classifications should appear on the cover page: ACADEMIC (Local, State, or Private Control); GOVERNMENT AGENCY (Local, State); NON PROFIT (Private Ownership, Local Government Funded, State Government Funded); INDIAN TRIBE; PROFIT (Private Ownership, Small Business, Partnership, Corporation, Private or Public Utility); INDIVIDUAL. Copies should be numbered, 1 through 10. The number 1 copy should be the original with the signature in ink. The person signing must have the authority to commit the proposer to all the provisions of the proposal.
- (2) Summary - Submit a concise summary of the proposed project not to exceed 1000 words. Include permitting, drilling, data collection, abandonment, hole completion and maintenance, project management, and reporting.
- (3) Table of Contents - Include a Table of Contents to facilitate locating the elements outlined in these guidelines (include page numbers).
- (4) Part A - Resource Potential (Criterion 1)
  - (a) Identify the specific proposed hole site location by providing a legal description and a map with the location clearly marked. Only one hole site location may be proposed. A proposer may propose more than one site; however, a separate proposal must be submitted for each site.
  - (b) Provide all available data, technical analysis, and rationale to support the potential that the proposed hole depth and location will enhance and expand the knowledge of the geohydrology and geothermal resource potential within the Cascades volcanic region. Include as a minimum:
    - o A description of any hydrothermal manifestations such as thermal springs, spring deposits, thermal wells, hydrothermal alteration, etc.;
    - o All the geological, geochemical, geophysical and hydrological data available on the area, including any relevant subsurface information from prior drilling;
    - o Any negative information that bears on the hole site and resource interpretation including non-thermal wells and springs and data which does not support the proposer's analysis;

- o The origin of all data and interpretations used;
- o The proposer's rationale and analysis supporting its hypothesis that a deep resource target worthy of drill testing exists at the proposed hole location;
- o A comprehensive geological description of the hole site and its resource potential as visualized by the proposer.
- o The supporting evidence and logic that the proposed hole depth will evaluate the deeper hydrothermal regime;
- o The geologic and hydrologic hypotheses to be tested by the proposed drilling.

(5) Part B - Technical Approach to the Project (Criterion 2)

Provide a Statement of Work based on Section F of this solicitation. Insure that all ( ) blanks in Section F are filled in for the Statement of Work provided in the proposal.

As attachments to the proposed Statement of Work, provide detailed descriptions of the work proposed for performance under each of the tasks identified below. These detailed descriptions are the plans, in preliminary form, required by the Statement of Work (Section F.)

Proposers may utilize environmental reports, drilling plans, and other documents required by governmental regulatory agencies as a basis for fulfilling DOE's reporting requirements identified in Section 5.0 of the Statement of Work (Section F). However, DOE will require modification of or additions to such documents as necessary for compliance with the negotiated Statement of Work.

(a) Drilling - Describe in detail the work proposed for performance under Task 4.1 - Drilling of the proposed Statement of Work. Include the following:

- o Surface and subsurface conditions anticipated to be encountered during drilling, including configuration of the resource site access.
- o Site preparation.
- o Hole design including hole size, casing size, cementing, etc.
- o Anticipated hole problems, if any, and proposed solutions.

- o Drilling fluids and disposal method.
  - o Hole completion.
  - o Plugging and abandonment.
  - o Site restoration.
  - o Rig and equipment specifications.
  - o Well containment during and after drilling.
  - o Site facilities, if any.
  - o Health, safety and environmental considerations.
  - o Drilling schedule including major activities and estimated duration.
  - o Any other pertinent information.
- (b) Data Collection Describe in detail the work proposed for performance under Task 4.2 of the Statement of Work (Section F).
- (a) Identify the types of data proposed to be collected during and after drilling.
  - (b) Identify the depths at which each type of data is proposed to be taken.
  - (c) Identify the proposed timing for collection of each type of data in relation to the setting of casing and hole completion.
  - (d) Describe the proposed method of collection for each type of data.

Minimum data collection requirements are identified in Subtask 4.2B, Statement of Work (Section F). The proposer shall include these requirements and any additional data collection which it proposes to perform. DOE suggests that additional data to be collected include:

- o Additional well logs for specific purposes;
- o Additional core (DOE desires proposals that specify a higher percentage of core than cuttings, where practical);

- o Downhole samples of formation water accompanied by samples of the drilling fluid in use prior to sampling;
  - o Pressure measurements by drill stem tests;
  - o Reservoir engineering data.
- (c) Hole Completion and Maintenance - The proposer should address hole completion under (a) Drilling (see pages 10-11). DOE requires that the hole and the site be completed and maintained such that DOE will have access to the hole and site for additional logging, testing and other scientific purposes for a specified period of time after completion. DOE anticipates this access period to be approximately 12 months. The proposers should state its plans for maintenance of the hole and the drill site for a specified period of time after completion for DOE scientific use. A description of the proposed facilities to be available to DOE throughout the access period should be included. The proposal should address additional tests and data the proposer plans during this period and the availability of this data to DOE.

During this access period, and after the time estimated to be required for the hole to reach thermal equilibrium, a detailed, high precision temperature log will be obtained by DOE at DOE's expense. Copies of the resulting temperature and depth data will be given the proposer.

- (d) Abandonment - The proposer should address abandonment under (a) Drilling (see pages 10-11). The proposer shall state whether it proposes to plug and abandon immediately after the DOE access period or whether it proposes to plug and abandon at some later date. If the proposal is to plug and abandon immediately after the DOE access period, the proposer shall describe plugging and abandonment of the hole, in accordance with governing regulations. If the proposer plans to not abandon the hole immediately after the access period, DOE will not cost share plugging and abandonment. Responsibility of the hole will then rest completely with the proposer.

(6) Part C - Business Approach to the Project (Criterion 3)

- (a) Describe any relevant experience or related capabilities of the proposing organization and identified subcontractors (including consultants) that lend strength to the proposed project. Proposals should include a complete description of previous experience that would demonstrate ability to plan and manage projects of similar magnitude.

Provide a listing of current or recent (within the last two years) Government contracts or other contracts by the

proposer(s) in this or related fields. Include the name of the sponsoring agency or firm, contract number, amount of contract, subject area of contract, name and phone number of Contracting Officer for any Government contracts cited. Also, provide information concerning cost and schedule performance. If necessary for evaluation, DOE may solicit experience data concerning proposer's past performance.

(b) Provide an overall project management plan.

Include discussion of the following as a minimum: a brief description of the proposing entity including, type of business, history, and discussion of ownership and/or controlling interest; organizational structure and elements; work breakdown structure; individual responsibilities and task assignments of each key participant (organizations and personnel); estimates of personnel effort for each task; manpower availability and commitment to satisfy task requirement; management techniques to be applied. The Statement of Work (Section F) is a guide in preparing the work breakdown structure and task descriptions.

Identify all subcontractors (including consultants) where possible. Clearly explain the nature and extent of their efforts in support of the proposed project. If all subcontractors are not yet identified, describe how they will be selected.

Provide a work schedule for the project that includes the sequencing and interrelationship of the various tasks as defined by the scope of work; identification and description of principal milestones and dates of accomplishment; identification and description of decision points, especially those between major program steps and the mechanisms for DOE involvement in the decision-making process. The schedule should be keyed to the work breakdown structure and should be based on a time line from agreement award not calendar dates.

(c) Provide the names of the individuals and alternates that you propose to assume the key positions (including those of identified subcontractors). Include their resumes indicating education, qualifications, technical skills, abilities, and experience. Key personnel should include, but not be limited to, Project Manager(s) and those directly responsible for drilling and data collection. Specify comparable experience of key personnel, including degree of responsibility.



(d) Institutional Considerations

This part of the proposal will reflect the concerns identified in Task 4.6 of the Statement of Work (Section F).

Identify all reports, plans, permits, leases, licenses, and other documents required by governmental regulatory agencies to perform this work, the agency whose requirement the document fulfills, and the actual or projected submittal and agency approval dates.

Include documentation such as ownership, permits, or leases providing the proposer's existing right of access to the proposed site, if available. For leases provided identify the names and addresses of all persons and entities having any interest in the lease. If this documentation is unavailable at time of proposal, the proposal shall identify the status of right of access to drill as proposed. Proposers selected for negotiation must provide to DOE proof of right of access to drill as proposed at the proposed hole location prior to award of an agreement.

Describe any potential impediments to any required permits or approvals.

Include a brief summary of the potential environmental, legal, and other institutional concerns relating to the project. This summary should be in enough detail to demonstrate that the proposer has an understanding of concerns and has a plan to mitigate or resolve the issues.

VOLUME II

- (1) Cover page for Volume II - Refer to instructions in Section J, Attachment No. 2 for general format. Identify the original as "Copy 1." Note that the signature(s) of the responsible individual(s) should be on the cover page of Volume II. The person signing must have the authority to commit the proposer to the provisions of the proposal.
- (2) Certification of Qualification Criteria - The proposer shall execute and sign Section J, Attachment No. 3, and include it as the first page of Volume II.
- (3) Table of Contents - Volume II should include a Table of Contents to facilitate locating the elements outlined in these guidelines (include page numbers).

(4) Part D - Financial Considerations (Criterion 4)

- (a) Project Financial Plan - Describe the project financial plan and include the following:
- (i) Describe the amount and method of financing proposed for the non-DOE share of the project.
  - (ii) Provide financial data on the proposer and the proposer's available financial resources. Annual financial statements (preferably with auditor's opinion on the balance sheet and income and expense statement) for the past three years should be attached for proposers and major proposed subcontractors and consulting firms.
- (b) Cost-Share Plan - DOE will cost-share up to 50 percent of the cost of drilling and associated data collection. DOE's contribution will also be subject to a maximum amount which will be negotiated prior to award. DOE will not exceed its "up to 50 percent" cost-share.

The proposal shall state the total estimated cost of the thermal gradient project and the percentage cost sharing being requested. (This total project cost shall be equal to the amount on line 13 of the Pricing Proposal Form, Section J, Attachment No. 6).

(5) Part E - Project Cost/Budget Summary

This part of the proposal consists of the proposer's estimated cost to perform the desired work as set forth in the proposed Statement of Work. Since the project cost/budget summary will be evaluated to determine such matters as the reasonableness of the cost, the probable cost to the Government, and an understanding of the magnitude of effort, it should be accurate, complete, and well documented. Cost information is not to be included in any of the other volumes of the proposal.

- (a) The cost data of the proposal should be submitted on Pricing Proposal Form 1411 (Section J, Attachment 6) with the support data noted in the instructions and footnotes thereto. The "Detailed Description of Cost Elements", items 1 through 13 on the Pricing Proposal Form, should be detailed and appended with supporting schedules. The proposer may append as many schedules as required to detail fully the costs of the project. Include the method of computation and application of labor overhead and general and administrative costs. The estimated project costs should be clearly delineated in sufficient detail to permit evaluation of each component.

Any cost escalation factors utilized in determining the cost estimates should be clearly defined. Any subcontracted costs should be summarized on a separate supplementary Pricing Proposal Form for each subcontractor and totaled on the proposer's Pricing Proposal Form, under item 8. The proposer is not entitled to include a fee or profit in this cost pricing proposal.

- (b) Provide a budget summary by the key (major functional) tasks determined in the work breakdown structure; i.e., estimate the number of labor hours contributed by individual, and costs and duration of time in weeks for each task to permit evaluation of each activity. Allocate other costs (equipment, consultants, etc.) to each task so that the total estimated costs of this summary equal the total estimated costs under (a) above.

In order to qualify for a cost-reimbursement type agreement, the awardee must have an accounting system acceptable to DOE.

- (6) Part F - Other Required Forms - The following forms are required before a Cooperative Agreement can be executed:
  - (a) The "Representations and Certifications," Section I of this SCAP, should be completed and signed by the proposer.
  - (b) The "Federal Assistance Standard Form 424," Section J, Attachment No. 8 of this SCAP, should be completed as applicable by the proposer.

These forms are for SCAP review only and will not be used in the evaluation. These forms should be submitted as part of Volume II.

#### 4. OTHER PERTINENT INFORMATION

- (a) False Statements

Proposals must set forth full, accurate, and complete information as required by this SCAP (including attachments). The penalty for making false statements in proposals is prescribed in 18 U.S.C. 100.

- (b) Treatment of Proprietary Information

Proposals submitted in response to this SCAP may include technical data and other data, including trade secrets and/or privileged or confidential commercial or financial information, which the proposer does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation. To

protect such data the proposer must specifically identify each page including each line or paragraph thereof containing the data to be protected and mark the cover sheet of the proposal with the following Notice:

NOTICE

The data contained in pages \_\_\_\_ of this proposal have been submitted in confidence and contain trade secrets and/or privileged or confidential commercial or financial information, and such data shall be used or disclosed only for evaluation purposes, provided that if an agreement is made as a result of or in connection with the submission of this proposal, the Government shall have the right to use or disclose the data herein to the extent provided in the agreement. This restriction does not limit the Government's right to use or disclose data which it obtains without restriction from any source, including the proposer.

Reference to the above Notice on the cover sheet should be placed on each page to which the Notice applies. Data, or abstracts of data marked with this Notice will be retained in confidence and used by DOE or its designated representative(s), including Government contractors and consultants solely for the purpose of evaluating the proposal. The data so marked will not otherwise be disclosed or used without the proposer's prior written permission except to the extent provided in any resulting cooperative agreement, or to the extent required by law. The restriction contained in the notice does not limit the Government's right to use or disclose any data contained in the proposal if it is obtainable from any source, including the proposer, without restriction. Although it is DOE's policy to treat all proposals as confidential, the Government assumes no liability for disclosure or use of unmarked data for any purpose.

(c) DOE Treatment of Proposal Information

Information contained in proposals will be utilized by DOE in accordance with the provisions of DOE Financial Assistance Rules 600.18. DOE may use personnel from other Federal agencies, DOE contractors, or other consultants to DOE in the evaluation of the proposals. Assurances will be obtained from all evaluators that DOE's commitments are met relating to the proprietary nature of any proposal information.

(d) Inventions

Any agreement resulting from proposals submitted under this SCAP will provide for the assignment to the Government of the entire right, title, or interest throughout the world in and to any inventions or discoveries conceived or first actually reduced to

practice in the course of or under the agreement, except that the Participant shall retain a revocable, non-exclusive, paid-up license in any such invention.

The proposer, however, has the right in accordance with applicable statutes and DOE regulations to request in advance or within 30 days after the effective date of the agreement, a waiver of all or any part of the rights of the United States in such inventions. To request such a waiver, the proposer should request a waiver application form from DOE after notification of award and prior to execution of an agreement. The decision as to whether such a waiver will be granted is a DOE administrative action, and should not be considered as a contractual action which must be accomplished prior to execution of an agreement.

A small business, institution of higher education or nonprofit scientific or educational organization is automatically entitled to a waiver of the Government title to inventions as set out in the clause "Patent Rights - Cooperative Agreements With Small Business Firms or Nonprofit Organizations."

(e) Rights in Technical Data

The Government shall obtain unlimited rights in the technical data contained in any proposal submitted in response to this SCAP which results in an award except those portions of the technical data which the proposer asserts and properly marks as proprietary data (see 4.(b) above), or which are not directly related to, or will not be utilized in the project, and are deleted from the proposal with the concurrence of DOE. If the proposer believes that it is necessary to submit proprietary information as part of its work under any agreement resulting from this SCAP, the proposer should specifically note the type of information in the proposal so that the Contracting Officer can determine whether such proprietary information should be submitted as part of the work under the agreement. In the absence of a specific request for proprietary information by the Contracting Officer, no such information or data shall be provided under the agreement.

(f) Proposal Clarification

DOE reserves the right to require proposals to be clarified or supplemented to the extent considered necessary either through additional written submissions or oral presentations.

(g) Amendments

If and when amendments to the SCAP are issued each one must be acknowledged in Volume II.

(h) Small Business

DOE strongly encourages small business and disadvantaged business participation in its programs and in this SCAP. It is DOE policy to give these business concerns a reasonable opportunity to participate fairly and equitably. The project contemplated under this SCAP may be appropriate for small business involvement. If applicable, certification of small business status for proposed team members and subcontractors is to be submitted with the proposal. Definitions relating to small business size standards are based on governing regulations of the Small Business Administration. The definitions can be found in the Federal Acquisition Regulations, 13 CFR 121.3-2, or by calling your local Small Business Administration Office.

(i) Proposer's Past Performance

DOE reserves the right to solicit from available sources relevant information concerning a proposer's past performance and may consider such information in its evaluation.

(j) Government Right to Reject, Negotiate, or Award

The Government reserves the right, without qualification, to reject any or all proposals received in response to this SCAP or to select any proposal as a basis for negotiation. Notice is also given of the possibility that award may be made after only limited discussions or negotiations. Therefore, all proposals should be submitted initially on the most favorable technical, cost, and other terms to the Government that the proposer can submit.

(k) Commitment of Public Funds

The Contracting Officer is the only individual who can legally commit the Government to the expenditure of public funds in connection with the proposed procurement. Any other commitment, either explicit or implied, is invalid.

(l) Where to Send Proposal

Ten (10) copies of each proposal must be received at the following specified room on or before 4:00 p.m., Mountain Daylight Time, on April 29, 1985.

Ms. Elizabeth M. Hyster  
Contracts Management Division  
U.S. Department of Energy  
Idaho Operations Office  
550 Second Street - Room No. 119  
Idaho Falls, Idaho 83401

To facilitate handling, please mark on the outside of the envelope containing your proposal:

Proposal for Cascades Deep Thermal Gradient Drilling  
- To Be Opened by Addressee Only

(m) Questions

Any questions regarding this SCAP must be submitted in writing by April 1, 1985, to the addressee above to assure receipt of response.

(n) Elaborate Brochures

Elaborate brochures or other presentations beyond those sufficient to present a complete and effective proposal are neither necessary nor desired.

(o) Handcarried Proposals

If the proposer elects to forward the proposal by means other than the U.S. Mail, insuring that the proposal is received at the place, date, and time specified in Item (1) above is the full responsibility of the proposer.

(p) Late Proposals, Modifications of Proposals, and Withdrawal of Proposals

Late proposals, modifications of proposals, and withdrawal of proposals will be handled in accordance with the DOE Financial Assistance Rules paragraph 600.13, which is included in Section J, Attachment 5.

(q) Signed Originals

Copy No. 1 of Volumes I and II should contain the signed original of all documents requiring signature by the proposer. Use of reproductions of signed originals is authorized in all other copies of the proposal.

(r) Disposal of Proposals

Proposals will not be returned.

(s) Effective Period of Proposal

All proposals should remain in effect for at least 200 days from the date designated for receipt of proposals.

(t) Type of Agreement

The work will be performed under a cooperative agreement. No profit or fee shall be paid to the participant.

(u) Pre-award Costs

The Government is not liable for any costs incurred in the preparation of a proposal. Further, for a selected proposal costs incurred prior to the signing of the cooperative agreement are not reimbursable unless specifically authorized in writing by the Contracting Officer.

(v) Availability of Funds

DOE will agree to participate in a project at a specific level to be negotiated; however, the actual amount to be obligated in each fiscal year will be subject to the availability of funds appropriated by Congress.



SECTION F  
STATEMENT OF WORK

1.0 Introduction

The Cascade volcanic region has long been suspected to contain considerable geothermal potential, as evidenced by recent volcanism and other thermal expressions. There are few known surface manifestations of geothermal energy in spite of the obvious occurrence of heat sources. One possible explanation is that the downward percolation of the extensive regional cold ground-water system suppresses surface evidence of underlying hydrothermal systems. However, there have been few wells drilled in the Cascades region to a sufficient depth to properly evaluate the temperature and hydrological conditions beneath the cold water zone. There is a great need for characterization identification of the deeper hydrothermal regime in order to more conclusively define the geothermal potential of the Cascades volcanic environment.

DOE's objectives are 1) to gather data to characterize the deep hydrothermal resource of the Cascades volcanic region and 2) to transfer this data to the public in order to stimulate further development of hydrothermal resources.

2.0 Scope

The Participant will drill a deep thermal gradient hole to a depth of (number) feet at (legal description of location). The Participant will perform data collection both during and subsequent to drilling. The Participant will maintain the hole and allow DOE access to the hole to collect data. The Participant will be responsible for obtaining any permits or approvals required by government regulatory agencies in the performance of this project. The Participant will provide the data and information gathered under this project to DOE.

3.0 Applicable Documents

Work performed by the Participant will be in compliance with all Federal, state, and local laws, rules and regulations, and agency orders and guidelines.

4.0 Technical Tasks

4.1 Drilling

- A. The Participant shall prepare and obtain DOE approval of a Project Drilling Plan prior to drilling. The plan shall describe:

- o Surface and subsurface conditions anticipated to be encountered during drilling, including configuration of the resource.
  - o Site access.
  - o Site preparation.
  - o Hole design including hole size, casing size, cementing, etc.
  - o Anticipated hole problems, if any, and proposed solutions.
  - o Drilling fluids and disposal method.
  - o Hole completion.
  - o Plugging and abandonment.
  - o Site restoration.
  - o Rig and equipment specifications.
  - o Well containment during and after drilling.
  - o Site facilities, if any.
  - o Health, safety and environmental considerations.
  - o Drilling schedule including major activities and estimated duration.
- B. The Participant will drill a deep thermal gradient hole in accordance with the approved Project Drilling Plan.

#### 4.2 Data Collection

- A. The Participant shall prepare and obtain DOE approval of a Project Data Collection Plan prior to drilling. This plan will be divided into two sections: one will address data collection during drilling; one will address data collection after drilling. Both sections will identify the type of data to be collected, the depth(s) at which each type of data will be collected, the timing of collection, and the method by which the Participant plans to collect each type of data

The plan will specifically identify all logs and samples of rock and fluid required as a minimum by Subtask 4.3B. below.

B. The Participant shall collect the following data as a minimum:

Rock Sampling -

- o Drill cuttings samples and/or core are required from the entire drilled interval. Cuttings will be collected at a minimum of each 5 meters (15 feet) in four splits of 500 grams each. Cuttings should not be washed. An accompanying lithologic log shall be prepared.
- o A minimum of 10 ft. of core per hole. This core may be continuous or taken over selected intervals. All or part of the core should come from the bottom 200 feet of the hole.
- o DOE will require an equal split of all core taken and will specify if any special preservation of the core is required prior to coring. Should the Participant have no further need of the split upon completion of analysis, DOE will take possession of any or all of the core.

Fluid Sampling -

- o Daily measurements of the hydraulic head prior to the start of drilling.
- o Lost circulation amounts, times and depths.
- o In the case of artesian flow, the Participant shall perform a flow test to obtain flow data and to collect representative samples of formation water for chemical analysis. At least 2 liters of clear filtered water should be collected in plastic bottles and sealed to prevent evaporative loss. A two liter sample of the drilling fluids in use prior to sampling should accompany each water sample. DOE will be responsible for providing collection bottles and the chemical analysis of the samples. Copies of the resulting analyses will be given to the proposer.

Geophysical Well Logging - Temperature, caliper, resistivity, self potential, sonic velocity, and density logs. All logs will cover the entire interval of the hole from surface to total depth and will be performed prior to casing the hole. The temperature log tool shall be calibrated so that the precision in measurement is less than 1°C at all points.

C. The Participant will perform additional data collection in accordance with the approved Project Data Collection Plan.

#### 4.3 Hole Completion and Maintenance

The Participant shall complete and maintain the hole and the site facilities for (number) months after hole completion in accordance with the approved Project Drilling Plan. The hole and site facilities shall be made available to DOE during this period for DOE's scientific use. The Participant may also collect data during this period at its own expense and on a non-interference basis.

#### 4.4 Abandonment

The Participant shall plug and abandon the hole in accordance with governing regulations within the (number) months subsequent to the end of the DOE access period. If for any reason the hole is not plugged and abandoned by the end of this period, the hole becomes the legal and financial responsibility solely of the Participant.

#### 4.5 Project Management

- A. The Participant shall prepare and obtain DOE approval of a Project Management Plan within 30 days after award. The plan will include a work breakdown structure, identify the individuals and subcontractors responsible for each task, discuss the management techniques to be used, and include a schedule that shows the period for performance of each subtask and identifies principal milestones and decision points and dates for each.
- B. The Participant shall perform project management in accordance with the approved Project Management Plan. The Participant shall advise DOE immediately of problems or the need for discussions so that decisions concerning the project can be made in a timely manner.

#### 4.6 Permitting and Environmental Reporting

- A. The Participant shall submit and obtain DOE approval of a Project Institutional Plan. The plan will identify all reports, plans, permits, licenses, and other items required by governmental regulatory agencies for the performance of this work, the agency whose requirement the item fulfills, and the actual or projected submittal and agency approval dates.

The plan will also discuss any legal, social, or institutional problems anticipated during performance of the project and the planned solution.

- B. The Participant shall prepare, submit and obtain approval of any documentation required by governmental regulatory agencies for the performance of this work. A copy of all documentation provided to any governmental agency and pertinent to this project shall be provided to DOE. Costs incurred prior to award will not be considered project costs, even though the effort was in fulfillment of this subtask.
- C. The Participant shall prepare and obtain DOE approval of an Environmental Evaluation Report prior to performance of any ground disruptive activity. The Environmental Evaluation Report will be site-specific and in accordance with DOE Environmental Guidelines (See Section J, Attachment 10). The Participant will identify the Environmental Evaluation Report in its Project Institutional Plan.
- D. If DOE determines that an Environmental Assessment is required, DOE will notify the Participant in writing. Upon such notification, the Participant will provide information as required by DOE for DOE's preparation of the Environmental Assessment.

#### 5.0 Reports, Data, and Other Deliverables

- A. The Project Drilling Plan as required by Subtask 4.1.A.
- B. The Project Data Collection Plan as required by Subtask 4.2.A.
- C. The Project Management Plan as required by Subtask 4.5.A.
- D. The Project Institutional Plan as required by Subtask 4.6.A.
- E. All data collected by the Participant under Task 4.2.
- F. Reports, identified on the attached DOE Form CR-537, Reporting Requirements Checklist, are required to be submitted as defined in Schedule Article No. VII.

#### 6.0 Special Considerations

##### Financial

The Participant shall confirm all financial arrangements for implementation of the project and provide DOE with evidence that project financing is sufficient to complete the project prior to performance of any work under this Agreement. Details are to be negotiated.

Costs associated with obtaining project financing will not be allowable cost or cost-sharing cost.

SECTION G

ADMINISTRATION OF THE COOPERATIVE AGREEMENT

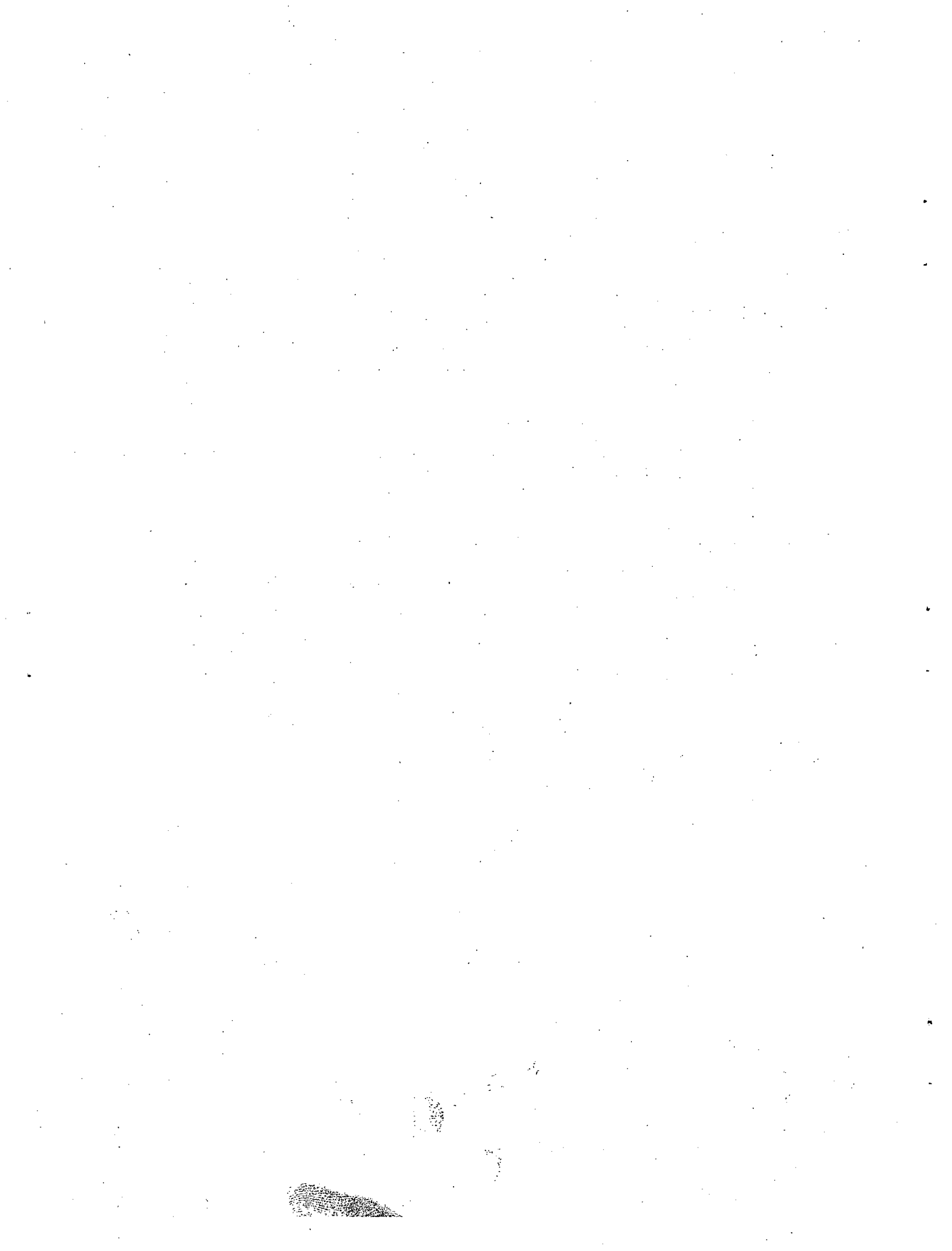
The contractual instrument which results from this SCAP will be a cooperative agreement which is entered into under the authority of the DOE Financial Assistance Rules 10 CFR Part 600. For proposers who are nonprofit organizations, universities, Indian tribes, or states, the applicable administrative requirements will be those in OMB Circular A-110 or A-102. Cooperative Agreements with other proposers will have those administrative requirements prescribed in the DOE Financial Assistance Rules 10 CFR 600, Subpart C, as listed in Section 600.290.

Cost principles also vary according to the nature of the participant. Profit organizations are subject to the cost principles of the Federal Acquisition Regulations at Subpart 31.2 as supplemented by the DOE Acquisition Regulations at Subpart 931.2. Non-profit organizations, universities, Indian tribes, and states are subject to OMB Circulars A-122, A-21, and A-87.

Cost-reimbursement type subcontracts/consultant agreements under the Cooperative Agreement shall use the cost principles which are appropriate for the type of subcontractor organization. Patent provisions are also dependent upon the type of subcontractor/consultant organization.

Section H is a cover sheet and Schedule Articles which will be applicable to all Participants. Three sets of General Provisions are also included and, depending on the type of the Participant organization, the appropriate one will be used.

Refer to the sample Cooperative Agreement (Section H), Article VIII, RESPONSIBLE PERSONS AND PERSONNEL, for responsibilities of DOE Program Officer and Contracting Officer.



SECTION H

COOPERATIVE AGREEMENT

The attached sample Cooperative Agreement contains the terms and conditions applicable to any work arising out of this SCAP. Most of these terms and conditions are required by statute or regulation.



**U.S. DEPARTMENT OF ENERGY**  
**NOTICE OF FINANCIAL ASSISTANCE AWARD**  
*(See Instructions on Reverse)*

Under the authority of Public Law \_\_\_\_\_ and  
subject to legislation, regulations and policies applicable to *(cite legislative program title)*:

<b>1. PROJECT TITLE</b>  <b>3. RECIPIENT</b> <i>(Name, address, zip code, area code and telephone no.)</i>  <b>8. RECIPIENT PROJECT DIRECTOR</b> <i>(Name and telephone No.)</i>  <b>9. RECIPIENT BUSINESS OFFICER</b> <i>(Name and telephone No.)</i>  <b>11. DOE PROJECT OFFICER</b> <i>(Name, address, zip code, telephone No.)</i>	<b>2. INSTRUMENT TYPE</b> <input type="checkbox"/> GRANT <input type="checkbox"/> COOPERATIVE AGREEMENT <b>4. INSTRUMENT NO.</b> <b>5. AMENDMENT NO.</b> <b>6. BUDGET PERIOD</b> <b>7. PROJECT PERIOD</b> FROM:      THRU:      FROM:      THRU: <b>10. TYPE OF AWARD</b> <input type="checkbox"/> NEW <input type="checkbox"/> CONTINUATION <input type="checkbox"/> RENEWAL <input type="checkbox"/> REVISION <input type="checkbox"/> SUPPLEMENT <b>12. ADMINISTERED FOR DOE BY</b> <i>(Name, address, zip code, telephone No.)</i>
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**13. RECIPIENT TYPE**

<input type="checkbox"/> STATE GOV'T	<input type="checkbox"/> INDIAN TRIBAL GOV'T	<input type="checkbox"/> HOSPITAL	<input type="checkbox"/> FOR PROFIT ORGANIZATION	<input type="checkbox"/> INDIVIDUAL
<input type="checkbox"/> LOCAL GOV'T	<input type="checkbox"/> INSTITUTION OF HIGHER EDUCATION	<input type="checkbox"/> OTHER NONPROFIT ORGANIZATION	<input type="checkbox"/> C <input type="checkbox"/> P <input type="checkbox"/> SP	<input type="checkbox"/> OTHER <i>(Specify)</i>

<b>14. ACCOUNTING AND APPROPRIATIONS DATA</b>				<b>15. EMPLOYER I.D. NUMBER/SSN</b>
a. Appropriation Symbol	b. B & R Number	c. FT/AFP/OC	d. CFA Number	

<b>16. BUDGET AND FUNDING INFORMATION</b>	
<b>a. CURRENT BUDGET PERIOD INFORMATION</b> (1) DOE Funds Obligated This Action      \$ _____ (2) DOE Funds Authorized for Carry Over      \$ _____ (3) DOE Funds Previously Obligated in this Budget Period      \$ _____ (4) DOE Share of Total Approved Budget      \$ _____ (5) Recipient Share of Total Approved Budget      \$ _____ (6) Total Approved Budget      \$ _____	<b>b. CUMULATIVE DOE OBLIGATIONS</b> (1) This Budget Period <i>[Total of lines a.(1) and a.(3)]</i> \$ _____ (2) Prior Budget Periods      \$ _____ (3) Project Period to Date <i>[Total of lines b. (1) and b. (2)]</i> \$ _____

**17. TOTAL ESTIMATED COST OF PROJECT** \$ \_\_\_\_\_  
*(This is the current estimated cost of the project. It is not a promise to award nor an authorization to expend funds in this amount.)*

**18. AWARD/AGREEMENT TERMS AND CONDITIONS**

This award/agreement consists of this form plus the following:

a. Special terms and conditions (if grant) or schedule, general provisions, special provisions (if cooperative agreement)

b. Applicable program regulations *(specify)* \_\_\_\_\_ *(Date)* \_\_\_\_\_

c. DOE Assistance Regulations, 10 CFR Part-600, as amended, Subparts A and  B (Grants) or  C (Cooperative Agreements).

d. Application/proposal dated \_\_\_\_\_,  as submitted     with changes as negotiated

**19. REMARKS**

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<b>20. EVIDENCE OF RECIPIENT ACCEPTANCE</b>  _____ <i>(Signature of Authorized Recipient Official)</i> <i>(Date)</i>  _____ <i>(Name)</i>  _____ <i>(Title)</i>	<b>21. AWARDED BY</b>  _____ <i>(Signature)</i> <i>(Date)</i>  _____ <i>(Name)</i>  _____ <i>(Title)</i>
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SCHEDULE ARTICLES

ARTICLE I - STATEMENT OF JOINT OBJECTIVE

The purpose of this Cooperative Agreement between the United States Department of Energy (DOE or Government) and \_\_\_\_\_ (Participant) is to conduct research on the geothermal resources of the Cascades volcanic region. This action is authorized by Federal Law and is in furtherance of the U. S. Government's objectives to (a) stimulate development of the region by making data publicly available which will characterize the geothermal resource and, (b) increase knowledge of both applicable exploration techniques and the depth required to penetrate the rain curtain.

ARTICLE II - THE PROJECT MANAGEMENT PLAN

A. Participant's Responsibilities. The Participant shall furnish the materials, facilities, equipment, personnel, services, and all other necessary and related items for the drilling of, data collection from, and plugging and abandonment of a deep thermal gradient hole located at \_\_\_\_\_. Requirements of the project are further set forth in Appendix A to this Agreement which is titled "STATEMENT OF WORK" and which is made a part hereof by this reference. The Participant shall provide the funding and reports as specifically provided for elsewhere in this Agreement, and obtain all necessary licenses and permits.

B. DOE's Responsibilities. DOE will provide a specified amount of financial assistance, will monitor the project as specified in C. below, and will act upon the Participant's requests for approval in those instances in which DOE's approval is required.

C. DOE Project Monitoring. DOE will closely monitor the performance of work under the cooperative agreement. This monitoring shall include: frequent telephone communications; site visits with frequency and duration as dictated by program needs; onsite monitoring; participation in program review meetings; review of specified program reports; determination that milestones are satisfactorily accomplished; and generally handling routine contract administration activities as necessary to maintain the program budget and schedule within established limits.

In addition, DOE may assign an on-site or resident technical monitor for a portion of the program performance. The principal responsibility of the resident technical monitor will be to maintain frequent communications regarding project technical progress status with DOE program and project management personnel. Details regarding the resident technical monitor's accommodations at the project site(s), his duties and responsibilities, etc. shall be negotiated if and when DOE chooses to assign such a monitor. The monitor's rights of access to the Participants' facilities are as provided for in Schedule Article VIII, paragraph A in the General Provisions, Item 3, INSPECTION, and in the Statement of Work.

ARTICLE III - FINANCIAL SUPPORT

A. Estimated Cost. The total estimated cost of the work under this Agreement is \_\_\_\_\_ Dollars (\$ \_\_\_\_\_). If at any time the Participant has reason to believe that this or any revised estimate is in error, the Participant shall so notify DOE in writing and provide DOE with a new estimate with the next monthly Federal Assistance Management Summary Report.

B. DOE's Financial Support. The total cost to DOE for all the work under this project is \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), and under no circumstances will DOE's support exceed this amount. This limitation includes termination costs, if any.

C. Participant's Financial Support. All costs in excess of the \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) to be provided by DOE will be borne by the Participant. The estimated cost to the Participant is \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) to be provided as follows:

(to be negotiated)

D. Obligated Funds. The amount of funds presently obligated to this Agreement by DOE is \_\_\_\_\_ Dollars (\$ \_\_\_\_\_).

ARTICLE IV - PAYMENTS

Payments may be made on the basis of allowable costs incurred and/or milestones completed. Details are to be negotiated.

ARTICLE V - PAYMENT METHODS

A. Four copies of invoices shall be submitted to the address specified on Block 12 of the NFAA (DOE Form 4600.1).

B. Payments due for amounts properly invoiced in accordance with the terms and conditions specified elsewhere in the Cooperative Agreement shall be made either by Treasury check(s) payable to the Participant or by electronic funds transfer(s) to a financial institution designated by the Participant. The method of payment shall be determined by the Government at the time of payment in accordance with applicable Department of Treasury requirements.

C. After award but no later than fourteen (14) days before an invoice or bill is submitted for payment, the Participant shall designate a financial institution for the receipt of electronic funds transfer payments hereunder; and provide the appropriate Government representative (Contracting Officer or finance official as determined by the Government) with the name of the designated financial institution, financial

ARTICLE V - PAYMENT METHODS (Cont'd)

institution's or correspondent financial institution's 9-digit American Bankers Association identifying number, telegraphic abbreviation of such financial institution, and account number at the designated financial institution to be credited with the funds.

D. In the event the Participant during the performance of this Cooperative Agreement elects to designate a different financial institution for the receipt of any payment made using electronic funds transfer procedures, notification of such change and the information as specified in paragraph B. above must be received by the appropriate Government representative thirty (30) days prior to the date such change is to become effective.

E. Participant failure to properly designate a financial institution or to provide appropriate payee bank account information may delay payments of amounts otherwise properly due.

ARTICLE VI - TERM OF THE AGREEMENT

The work under this Agreement shall be completed by \_\_\_\_\_ or within any extension of time as may be mutually agreed to in writing by the parties.

ARTICLE VII - PROJECT INFORMATION SYSTEM

The Federal assistance recipient shall prepare and submit (postage prepaid) the plans and reports indicated on the Federal Assistance Reporting Checklist (Appendix A) to the addresses and in the number of copies designated on the checklist. Preparation of the specified plans and reports shall be in accordance with the attached DOE Order 1332.2, Uniform Reporting System for Federal Assistance (grants and cooperative agreements). The level of detail the recipient provides in the plans and reports shall be commensurate with the scope and complexity of the task and shall be as delineated in Block 4 - Reporting Requirements - and Block 5 - Special Instructions. The prime recipient shall be responsible for acquiring data from any subcontractors, or subrecipients to ensure that data submitted are compatible with the data elements which prime recipients submit to DOE. Plans and reports submitted in compliance with this provision are in addition to any other reporting requirements of the Federal assistance instrument.

All reports after delivery to DOE shall be the sole property of the DOE. The Participant shall not claim that any report contains any trade secrets or commercial or financial information deemed by the Participant to be privileged or confidential, or that the Participant has any proprietary interest in any report.

ARTICLE VIII - RESPONSIBLE PERSONS AND PERSONNEL

A. The Participant agrees to permit any specified DOE personnel or designated DOE Contractor personnel to have necessary access to the Participants and/or major subcontractor's facilities, personnel, and records pertaining to the project. Such DOE contractor personnel may be used to assist the Program Officer in carrying out his responsibilities.

B. The Contracting Officer has the responsibility/authority for executing, amending, and terminating award instruments. In addition, the contracting Officer, or designee, has the responsibility for: conducting negotiations concerning the statement of work, costs, and schedule; administration of the agreement; arranging for audits, as appropriate, and resolving audit findings; assuring policies and procedures are implemented, approving payments, and taking actions required to close-out the agreement.

C. The Program Officer is DOE's technical representative for the Agreement and has the following responsibilities: monitors and assesses the status of progress toward achieving the program milestones and objectives; reviews and evaluates all technical reports prepared by the Participant; represents DOE at program review meetings; reviews cost vouchers; and coordinates with the Participant in choosing among alternatives for future program activities. The Program Officer will be assisted by designated DOE Contractor personnel in carrying out these responsibilities.

D. The Program Officer for DOE under this Agreement, and the person who shall be the Participant's contact for all technical matters pertaining to this Agreement shall be the person named below or such other person as may be designated in writing by the Contracting Officer:

Susan Prestwich

E. The representative for the Participant for the purposes of this Agreement shall be the person named below or such other person as may be designated in writing by the Participant:

ARTICLE IX - PUBLIC INFORMATION RELEASES

The parties agree that public disclosure or dissemination of new data or information arising out of the design, construction or operation of the project will be coordinated by the parties, it being understood that the intent of both the Participant and DOE is to release all data and information to the greatest practicable extent in order to achieve the objective of obtaining maximum public value from the results of this project. It is understood that the foregoing is not intended to afford either party the right to prevent a public release by the other; however, nothing in this article shall impair the rights of the parties set forth elsewhere in this Agreement, including but not necessarily limited to General Provision 20 entitled "Patent Rights - Long Form".

ARTICLE X - ORGANIZATIONAL CONFLICTS OF INTEREST - GENERAL

A. The Participant warrants that, to the best of its knowledge and belief, and except as otherwise disclosed, there are no relevant facts which could give rise to organizational conflicts of interest, as defined in DEAR Subpart 909.5 or that the Participant has disclosed all relevant information.

B. The Participant agrees that, if after award, an organizational conflict of interest with respect to this Agreement is discovered, an immediate and full disclosure in writing shall be made to the Contracting Officer which shall include a description of the action which the Participant has taken or proposes to take to avoid or mitigate such conflicts. The Department may, however, terminate the Agreement for its convenience if it deems such termination to be in the best interest of the Government.

C. In the event that the Participant was aware of an organizational conflict of interest prior to the award of this Agreement and did not disclose the conflict to the Contracting Officer, the Government may terminate the Agreement for default.

D. The provisions of this article shall be included in all subagreements for work to be performed similar to the services provided by the Participant, and the terms "Agreement," "Participant," and "Contracting Officer" modified appropriately to preserve the Government's rights.

GENERAL PROVISIONS FOR

COOPERATIVE AGREEMENTS

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GENERAL PROVISIONS

COOPERATIVE AGREEMENT

1. ORDER OF PRECEDENCE (DEAR 952.215-18) (APR 1984)

In the event of an inconsistency between provisions of this Cooperative Agreement, the inconsistency shall be resolved by giving precedence as follows: (a) schedule; (b) agreement clauses or (c) other provisions of the agreement, whether incorporated by reference or otherwise.

2. DEFINITIONS (DEAR 952.202-1) (APR 1984)

(a) The term "Head of Agency" means the Secretary, the Deputy Secretary, or Under Secretary of the Department of Energy.

(b) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determination and findings. The term includes, certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(c) Except as otherwise provided in this agreement, the term "subcontracts" includes but is not limited to, purchase orders and changes and modifications to purchase orders under this agreement.

(d) The term "DOE" means the Department of Energy.

(e) The terms "contract" and "Contractor" mean agreement and Participant respectively.

3. INSPECTION OF RESEARCH AND DEVELOPMENT-SHORT FORM (FAR 52.246-9) (APR 1984)

The Government has the right to inspect and evaluate the work performed or being performed under the agreement, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Participant or a subcontractor, the Participant shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

4. RIGHTS TO PROPOSAL DATA (DEAR 952.227-82) (APR 1984)

Except for technical data contained on pages (none) of the Contractor's proposal dated (none) which are asserted by the Contractor as being proprietary data, it is agreed that, as a condition of the award of this contract, and notwithstanding the provisions of any notice appearing on the proposal, the Government shall have the right to use, duplicate, disclose and have others do so for any purpose whatsoever, the technical data contained in the proposal upon which this contract is based.

5. EXAMINATION OF RECORDS BY COMPTROLLER GENERAL (10 CFR 600.25)

(a) Recipient records. DOE and the Comptroller General of the United States, or any of their authorized representatives, shall have the right of access to any books, documents, papers, or other records of a recipient that are directly pertinent to the DOE financial assistance award, in order to make audit, examination, excerpts, and transcripts.

(b) Subrecipient records. DOE, the Comptroller General of the United States, and the recipient, or any of their authorized representatives, shall have the right of access to any books, documents, papers, or other records of a subrecipient which are directly pertinent to the financial assistance subaward, in order to make audit, examination, excerpts, and transcripts.

(c) Contractor and subcontractor records. With respect to any negotiated contract or subcontract in excess of \$10,000 under a grant or cooperative agreement, DOE, the Comptroller General of the United States, the recipient and (if the contract was awarded under a financial assistance subaward) the subrecipient, or any of their authorized representatives shall have the right of access to any books, documents, papers, or other records of the contractor or subcontractor which are directly pertinent to that contract or subcontract, in order to make a audit examination, excerpts, and transcripts.

(d) Duration of access right. The right of access may be exercised for as long as the applicable records are retained by the recipient, subrecipient, contractor, or subcontractor (See § 600.124 and § 600.271 for record retention requirements for grants and cooperative agreements, respectively.)

6. CONVICT LABOR (FAR 52.222-3) (APR 1984)

The Participant agrees not to employ any person undergoing sentence of imprisonment in performing this agreement except as provided by 18 U.S.C. 4082(c)(2) and Executive Order 11755, December 29, 1973.

7. OFFICIALS NOT TO BENEFIT (FAR 52.203-1) (APR 1984)

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement, or to any benefit arising from it. However, this clause does not apply to this agreement to the extent that this agreement is made with a corporation for the corporation's general benefit.

8. COVENANT AGAINST CONTINGENT FEES (FAR 52.203-5) (APR 1984)

(a) The Participant warrants that no person or agency has been employed or retained to solicit or obtain this agreement upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this agreement without liability or, in its discretion, to deduct from the agreement price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a participant for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government agreements nor hold itself out as being able to obtain any Government agreement or agreements through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a participant and subject to the participant's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government agreements nor holds out as being able to obtain any Government agreement or agreements through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government agreement.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government agreement on any basis other than the merits of the matter.

9. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (41 CFR 9-9.104)

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

(a) The participant shall report to the Contracting Officer, promptly and in reasonable written detail, each notice of claim of patent or copyright infringement based on the performance of this agreement of which the participant 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 agreement or out of the use of any supplies furnished or work or services performed hereunder, the participant shall furnish to the Government when requested by the Contracting Officer, all evidence and information in

9. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (41 CFR 9-9.104) (Cont'd)

possession of the participant pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the participant has agreed to indemnify the Government.

(c) This clause shall be included in all contracts and subagreements under the agreement.

10. COMPETITION IN SUBCONTRACTING (FAR 52.244-5) (APR 1984)

The Participant shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the agreement.

11. AUDIT-NEGOTIATION (FAR 52.215-2) (APR 1984)

(a) Examination of costs. If this is a cost-reimbursement, incentive, time and materials, labor-hour, or price-redeterminable agreement, or any combination of these, the Participant shall maintain and the Contracting Officer or representatives of the Contracting Officer shall have the right to examine and audit books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred in performing this agreement. This right of examination shall include inspection at all reasonable times of the Participant's plants, or parts of them, engaged in performing the agreement.

(b) Cost or pricing data. If, pursuant to law, the Participant has been required to submit cost or pricing data in connection with pricing this agreement or any modification to this agreement, the Contracting Officer or representatives of the Contracting Officer who are employees of the Government shall have the right to examine and audit all books, records, documents, and or data of the Participant (including computations and projections) related to negotiating, pricing, or performing the agreement or modification, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data submitted, along with the computations and projection used.

(c) Reports. If the Participant is required to furnish cost, funding, or performance reports, the Contracting Officer or representatives of the Contracting Officer who are employees of the Government shall have the right to examine and audit books, records, other documents and supporting materials, for the purpose of evaluating (1) the effectiveness of the Participant's policies and procedures to produce data compatible with the objectives of these reports and (2) the data reported.

(d) Availability. The Participant shall make available at its office at all reasonable times the materials described in paragraphs (a) and (b) above, for examination, audit, or reproduction, until 3 years after final payment under this agreement, or for any shorter period specified in Subpart 4.7,

11. AUDIT-NEGOTIATION (FAR 52.215-2) (APR 1984) (Cont'd)

Contractor Records Retention, of the Federal Acquisition Regulation, or for any longer period required by statute or by other clauses of this agreement. In addition:

(1) If this agreement is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement; and

(2) Records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this agreement shall be made available until such appeals, litigation, or claims are disposed of.

(e) The Participant shall insert a clause containing all the terms of this clause, including this paragraph (e), in all subcontracts over \$10,000 under this agreement, altering the clause only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime agreement.

12. CLEAN AIR AND WATER (10 CFR 600.12) 13. PREFERENCE FOR U.S. FLAG CARRIERS (10 CFR 600.12) 14. USE OF U.S. FLAG COMMERCIAL VESSELS (10 CFR 600.12)

(a) "Generally applicable requirement" means Federal policies of administrative requirements that apply to (1) more than one DOE financial assistance award, or (2) a DOE financial assistance program and one or more other Federal assistance programs. Generally applicable requirements include, but are not limited to, the requirements of this Part, Federal statutes, the OMB Circulars and other governmentwide guidance implemented by this Part, Executive Orders, and the requirements identified in Appendix A of this Part.

(b) Except as expressly exempted by Federal statute or program rule, recipients and subrecipients of DOE financial assistance shall comply with all generally applicable requirements to which, by the terms of such requirements, they are subject. DOE may require the submission of preaward assurances of compliance with one or more generally applicable requirements and may conduct preaward and postaward compliance reviews only to the extent such actions are authorized by this Part, Federal statute or rule, Executive Order, or OMB directive.

15. PERMITS AND RESPONSIBILITIES (52.236-7) (APR 1984)

The Participant shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with and Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Participant shall also be responsible for all damages to persons or property that occur as a result of the Participant's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Participant shall also be responsible for all materials delivered

15. PERMITS AND RESPONSIBILITIES (52.236-7) (APR 1984) (Cont'd)

and work performed until completion and acceptance of the entire work, except for any completed and acceptance of the entire work, except for any completed unit of work which may have been accepted under the agreement.

16. REPORTING OF ROYALTIES (41 CFR 9-9.110)

If this agreement is in an amount which exceeds \$10,000 and if any royalty payments are directly involved in the agreement or are reflected in the amount of the agreement award, the participant agrees to report in writing to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) during the performance of this agreement and prior to its completion or closeout, the amount of any royalties or other payments paid or to be paid by it directly to others in connection with the performance of this agreement together with the names and addresses of licensors to whom such payments are made and either the patent numbers involved or such other information as will permit the identification of the patents or other basis on which the royalties are to be paid. The approval of DOE of any individual payments or royalties shall not stop the Government at any time from contesting the enforceability, validity, or scope of, or title to, any patent under which a royalty or payments are made.

17. AUTHORIZATION AND CONSENT (41 CFR 9-9.102-2)

The Government hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this agreement or any part hereof or any amendment hereto or any subcontract hereunder (including all lower-tier subcontracts).

18. NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS (10 CFR Part 1040)

The Participant agrees that no person in the United States shall, on the ground of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity for which the Participant receives Federal financial assistance from DOE.

19. RIGHTS IN TECHNICAL DATA - LONG FORM (DEAR 952.227-75)

(a) Definitions.

(1) "Technical Data" means recorded information regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental, developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related

19. RIGHTS IN TECHNICAL DATA - LONG FORM (DEAR 952.227-75) (Cont'd)

performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical data as used herein does not include financial reports, cost analyses, and other information incidental to agreement administration.

(2) "Proprietary Data" means technical data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:

(i) Are not generally known or available from other sources without obligation concerning their confidentiality;

(ii) Have not been made available by the owner to others without obligation concerning its confidentiality; and

(iii) Are not already available to the Government without obligation concerning their confidentiality.

(3) "Contract Data" means technical data first produced in the performance of the agreement, technical data which are specified to be delivered in the agreement, technical data that may be called for under the "Additional Technical Data Requirements" article of the agreement, if any, or technical data actually delivered in connection with the agreement.

(4) "Unlimited Rights" means rights to use, duplicate, or disclose technical data, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so.

(b) Allocation of Rights.

(1) The Government shall have:

(i) Unlimited rights in contract data except as otherwise provided below with respect to proprietary data.

(ii) The right to remove, cancel, correct or ignore any marking not authorized by the terms of this agreement on any technical data furnished hereunder, if in response to a written inquiry by DOE concerning the propriety of the markings, the Participant fails to respond thereto within sixty (60) days or fails to substantiate the propriety of the markings. In either case DOE will notify the Participant of the action taken.

19. RIGHTS IN TECHNICAL DATA - LONG FORM (DEAR 952.227-75) (Cont'd)

(iii) No rights under this Agreement in any technical data which are not contract data.

(2) The Participant shall have:

(i) The right to withhold proprietary data in accordance with the provisions of this clause.

(ii) The right to use for its private purposes, subject to patent, security or other provisions of this agreement, contract data it first produces in the performance of this agreement provided the data requirements of this agreement have been met as of the date of the private use of such data. The Participant agrees that to the extent it receives or is given access to proprietary data or other technical, business or financial data in the form of recorded information from DOE or a DOE contractor or subcontractor, the Participant shall treat such data in accordance with any restrictive legend contained thereon, unless use is specifically authorized by prior written approval of the Contracting Officer.

(3) Nothing contained in this "Rights in Technical Data" clause shall imply a license to the Government under any patent or be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

(c) Copyrighted Material.

(1) The Participant shall not, without prior written authorization of the Contracting Officer, establish a claim to statutory copyright in any agreement data first produced in the performance of the agreement. To the extent such authorization is granted, the Government reserves for itself and others acting on its behalf a royalty-free, nonexclusive, irrevocable, worldwide license for Governmental purposes to publish, distribute, translate, duplicate, exhibit and perform any such data copyrighted by the Participant.

(2) The Participant agrees not to include in the technical data delivered under the agreement any material copyrighted by the Participant and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in subparagraph (c)(1) above. If such royalty-free license is unavailable and the Participant nevertheless determines that such copyrighted material must be included in the technical data to be delivered, rather than merely incorporated therein by reference, the Participant shall request the written authorization of the Contracting Officer to include such copyrighted material in the technical data without a license.



19. RIGHTS IN TECHNICAL DATA - LONG FORM (DEAR 952.227-75) (Cont'd)

(d) Subcontracting. It is the responsibility of the Participant to obtain from its subcontractors technical data and rights therein, on behalf of the Government, necessary to fulfill the Participant's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Participant shall:

(1) Promptly submit written notice to the Contracting Officer setting forth reasons for the subcontractor's refusal and other pertinent information which may expedite disposition of the matter; and

(2) Not proceed with the subcontract without the written authorization of the Contracting Officer.

(e) Withholding of Proprietary Data. Notwithstanding the inclusion of the "Additional Technical Data Requirements" clause in this agreement or any provision of this agreement specifying the delivery of technical data, the Participant may withhold proprietary data from delivery, provided that the Participant furnishes in lieu of any such proprietary data so withheld, technical data disclosing the source, size, configuration, mating and attachment characteristics, functional characteristics and performance requirements ("Form, Fit and Function" data, e.g., specification control drawings, catalog sheets, envelope drawings, etc.), or a general description of such proprietary data where "Form, Fit and Function" data are not applicable. The Government shall acquire no rights to any proprietary data so withheld except that such data shall be subject to the "Inspection Rights" provisions of paragraph (f), and, if included, the "Limited Rights in Proprietary Data" provisions of paragraph (g) and the "Participant Licensing" provisions of paragraph (h)

(f) Inspection Rights. Except as may be otherwise specified in this agreement for specific items of proprietary data which are not subject to this paragraph, the Contracting Officer's representatives, at all reasonable times up to three (3) years after final payment under this agreement, may inspect at the Participant's facility any proprietary data withheld under paragraph (c) for the purposes of verifying that such data properly fell within the withholding provision of paragraph (e), or for evaluating work performance.

20. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION - GENERAL (FAR 52.222-4) (APR 1984)

This agreement, 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 terms and all other applicable provisions and exceptions of the Act and the regulations of the Secretary of Labor.

(a) Overtime Requirements. The Participant or contractor shall not require or permit any laborer or mechanic to work in excess of 8 hours in any calendar day, or 40 hours in any workweek, any part of the agreement work subject to the Act; unless, the laborer or mechanic receives compensation at a

20. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION - GENERAL (FAR 52.222-4) (APR 1984) (Cont'd)

rate not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 8 hours in any calendar day, or 40 hours in any workweek, whichever produces the greater amount of overtime.

(b) Violation, Liability for Unpaid Wages, and Liquidated Damages. If the terms of paragraph (a) above are violated, the Participant and any subcontractor responsible for the violation shall be liable to any affected employee for unpaid wages. In addition, the Participant and subcontractor shall be liable to the United States for liquidated damages. These damages are computed for each individual laborer or mechanic at \$10 for each calendar day on which the employee was required or permitted to be employed in violation of paragraph (a) above.

(c) Withholding for Unpaid Wages and Liquidated Damages. The Contracting Officer may withhold from the Participant, from any moneys payable on account of work performed by the Participant or subcontractor, such amounts as may administratively be determined to be necessary to satisfy any liabilities of the Participant or subcontractor for unpaid wages and liquidated damages as provided in paragraph (b) above.

(d) Subcontracts. The Participant and subcontractor shall insert paragraphs (a) through (d) of this clause in all subcontracts.

(e) Records. The Participant shall maintain payroll records containing the information specified in 29 CFR 516.2(a). These records shall be preserved for 3 years from agreement completion. The Participant will make the records available for inspection by authorized representatives of the Department of Energy and the Department of Labor, and will permit such representatives to interview employees during working hours on the job.

21. PATENT RIGHTS - LONG FORM (41 CFR 9-9.107-5(a))

(a) Definitions.

(1) "Subject Invention" means any invention or discovery of the Participant conceived or first actually reduced to practice in the course of or under this agreement, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented under the Patent Laws of the United States of America or any foreign country.

(2) "Contract" means any contract, grant, agreement, understanding or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

21. PATENT RIGHTS - LONG FORM (Cont'd)

(3) "States and domestic municipal governments" means the States of the United States, the District of Columbia, 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.

(6) "Patent Counsel" means the DOE Patent Counsel assisting the procuring activity.

(b) Allocation of Principal Rights.

(1) Assignment to the Government. The Participant agrees to assign to the Government the entire right, title, and interest throughout the world in and to each Subject Invention except to the extent that rights are retained by the Participant under subparagraph (b)(2) and paragraph (c) of this clause.

(2) Greater Rights Determinations. The Participant or the employee-inventor with authorization of the Participant may request greater rights than the nonexclusive license and the foreign patent rights provided in paragraph (c) of this clause on identified inventions, in accordance with 41 CFR 9-9.109-6. Such requests must be submitted to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) at the time of the first disclosure pursuant to subparagraph (e)(2) of this clause, or not later than nine (9) months after conception or first actual reduction to practice, whichever occurs first, or such longer period as may be authorized by Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Participant.

(c) Minimum Rights to the Participant.

(1) Participant License. The Participant reserves a revocable, nonexclusive, paid-up 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 Participant's domestic subsidiaries and affiliates, if any, within the corporate structure of which the Participant is a part and shall include the right to grant sublicenses of the same scope to the extent the Participant was

21. PATENT RIGHTS - LONG FORM (Cont'd)

legally obligated to do so at the time the agreement was awarded. The license shall be transferable only with approval of DOE except when transferred to the successor of that part of the Participant's business to which the invention pertains.

(2) Revocation Limitations. The Participant's nonexclusive license retained pursuant to subparagraph (c)(1) of this clause and sublicenses granted thereunder may be revoked or modified by DOE, either in whole or in part, only to the extent necessary to achieve expeditious practical application of the Subject Invention under DOE's published licensing regulations (10 CFR 781), and only to the extent an exclusive license is actually granted. This license shall not be revoked in that field of use and/or the geographical areas in which the Participant, or its sublicensee, has brought the invention to the point of practical application and continues to make the benefits of the invention reasonably accessible to the public, or is expected to do so within a reasonable time.

(3) Revocation Procedures. Before modification or revocation of the license or sublicense, pursuant to subparagraph (c)(2) of this clause, DOE shall furnish the Participant a written notice of its intention to modify or revoke the license and any sublicense thereunder, and the Participant shall be allowed thirty (30) days, or such longer period as may be authorized by the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Participant, after such notice to show cause why the license or any sublicense should not be modified or revoked. The Participant shall have the right to appeal, in accordance with 10 CFR 781, any decision concerning the modification or revocation of its license or any sublicense.

(4) Foreign Patent Rights. Upon written request to Patent Counsel (with notification by Patent Counsel to the Contracting Officer), in accordance with subparagraph (e)(2)(i) of this clause, and subject to DOE security regulations and requirements, there shall be reserved to the Participant, or the employee-inventor with authorization of the Participant, the patent rights to a Subject Invention in any foreign country where the Government has elected not to secure such rights provided:

(i) The recipient of such rights, when specifically requested by DOE and three (3) years after issuance of a foreign patent disclosing said Subject Invention, shall furnish DOE a report setting forth:

(A) The commercial use that is being made, or is intended to be made, of said invention, and

21. PATENT RIGHTS - LONG FORM (Cont'd)

(B) The steps taken to bring the invention to the point of practical application or to make the invention available for licensing.

(ii) The Government shall retain at least an irrevocable, nonexclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the Government (including any Government agency) and States and domestic municipal governments, unless the Secretary or his designee determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.

(iii) Subject to the rights granted in subparagraphs (c)(1), (2), and (3) of this clause, the Secretary or his designee shall have the right to terminate the foreign patent rights granted in this subparagraph (c)(4) in whole or in part unless the recipient of such rights demonstrates to the satisfaction of the Secretary or his designee that effective steps necessary to accomplish substantial utilization of the invention have been taken or within a reasonable time will be taken.

(iv) Subject to the rights granted in subparagraphs (c)(1), (2), and (3) of this clause, the Secretary or his designee shall have the right, commencing four (4) years after foreign patent rights are accorded under this subparagraph (c)(4), to require the granting of a nonexclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances and in appropriate circumstances to terminate said foreign patent rights in whole or in part, following a hearing upon notice thereof to the public, upon a petition by an interested person justifying such hearing:

(A) If the Secretary or his designee determines, upon review of such material as he deems relevant, and after the recipient of such rights, or other interested person, has had the opportunity to provide such relevant and material information as the Secretary or his designee may require, that such foreign patent rights have tended substantially to lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates; or

(B) Unless the recipient of such rights demonstrates to the satisfaction of the Secretary or his designee at such hearing that the recipient has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

21. PATENT RIGHTS - LONG FORM (Cont'd)

(d) Filing of Patent Applications.

(1) With respect to each Subject Invention in which the Participant or the inventor requests foreign patent rights in accordance with subparagraph (c)(4) of this clause, a request may also be made for the right to file and prosecute the U.S. application on behalf of the U.S. Government. If such request is granted, the Participant or inventor shall file a domestic patent application on the invention within six (6) months after the request for foreign patent rights is granted, or such longer period of time as may be approved by the Patent Counsel for good cause shown in writing by the requester. With respect to the invention, the requestor shall promptly notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) of any decision not to file an application.

(2) For each Subject Invention on which a domestic patent application is filed by the Participant or inventor, the Participant or inventor shall:

(i) Within two (2) months after the filing or within two (2) months after submission of the invention disclosure if the patent application previously has been filed, deliver to the Patent Counsel a copy of the application as filed including the filing date and serial number;

(ii) Within six (6) months after filing the application or within six (6) months after submitting the invention disclosure if the application has been filed previously, deliver to the Patent Counsel a duly executed and approved assignment to the Government, on a form specified by the Government;

(iii) Provide the Patent Counsel with the original patent grant promptly after a patent is issued on the application; and

(iv) Not less than thirty (30) days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application.

(3) With respect to each Subject Invention in which the Participant or inventor has requested foreign patent rights, the Participant or inventor shall file a patent application on the invention in each foreign country in which such request is granted in accordance with applicable statutes and regulations and within one of the following periods:

(i) Eight (8) months from the date of filing a corresponding United States application, or if such an application is not filed, six (6) months from the date the request was granted;

21. PATENT RIGHTS - LONG FORM (Cont'd)

(ii) Six (6) months from the date a license is granted by the Commissioner of Patents and Trademarks to file the foreign patent application where such filing has been prohibited by security reasons; or

(iii) Such longer periods as may be approved by the Patent Counsel for good cause shown in writing by the Participant or inventor.

(4) Subject to the license specified in subparagraphs (c)(1), (2) and (3) of this clause, the Participant or inventor agrees to convey to the Government, upon request, the entire right, title, and interest in any foreign country in which the Participant or inventor fails to have a patent application filed in accordance with subparagraph (d)(3) of this clause, or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent the Participant or inventor shall, not less than sixty (60) days before the expiration period for any action required by any Patent Office, notify the Patent Counsel of such failure or decision, and deliver to the Patent Counsel the executed instruments necessary for the conveyance specified in this paragraph.

(e) Invention Identification, Disclosures, and Reports.

(1) The Participant shall establish and maintain active and effective procedures to ensure that Subject Inventions are promptly 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 Participant shall furnish the Contracting Officer a description of these procedures so that he may evaluate and determine their effectiveness.

(2) The Participant shall furnish the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) on a DOE-approved form:

(i) A written report containing full and complete technical information concerning each Subject Invention within six (6) months after conception or first actual reduction to practice whichever occurs first in the course of or under this Agreement, but in any event prior to any on sale, public use or public disclosure of such invention known to the Participant. The report shall identify the Agreement and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram to convey to one skilled in the art to which the invention pertains a clear understanding of the nature, purpose, operation, and to the

21. PATENT RIGHTS - LONG FORM (Cont'd)

extent known, the physical, chemical, biological, or electrical characteristics of the invention. The report should also include any request for foreign patent rights under subparagraph (c)(4) of this clause and any request to file a domestic patent application under subparagraph (d)(1) of this clause. However, such requests shall be made within the period set forth in subparagraph (b)(2) of this clause. When an invention is reported under this subparagraph (e)(2)(i), it shall be presumed to have been made in the manner specified in Section 9(a)(1) and (2) of 42 U.S.C. 5908 unless the Participant contends it was not so made in accordance with subparagraph (g)(2)(ii) of this clause.

(ii) Upon request, but not more than annually, interim reports on a DOE-approved form listing Subject Inventions and subcontracts awarded containing a Patent Rights clause for that period and certifying that:

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

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

(C) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded.

(iii) A final report on a DOE-approved form within three (3) months after completion of the agreement work listing all Subject Inventions and all subcontracts awarded containing a Patent Rights clause and certifying that:

(A) All Subject Inventions have been disclosed or that there were no such inventions; and

(B) All subcontracts containing a Patent Rights clause have been reported or that no such subcontracts have been awarded.

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

(4) The Participant 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. If the Participant is to file a foreign patent application on a Subject



21. PATENT RIGHTS - LONG FORM (Cont'd)

Invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures until the expiration of the time period specified in subparagraph (d)(1) of this clause, but in no event shall the Government or its employees be liable for any publication thereof.

(f) Publication. It is recognized that during the course of the work under this agreement, the Participant or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this agreement. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Participant, patent approval for release or publication shall be secured from Patent Counsel prior to any such release or publication.

(g) Forfeiture of Rights in Unreported Subject Inventions.

(1) The Participant shall forfeit to the Government, at the request of the Secretary or his designee, all rights in any Subject Invention which the Participant fails to report to Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within six (6) months after the time the Participant:

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

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

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

(i) Prepares 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 agreement and delivers the same to Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(ii) Contending that the invention is not a Subject Invention the Participant nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

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

21. PATENT RIGHTS - LONG FORM (Cont'd)

(3) Pending written assignment of the patent applications and patents on a Subject Invention determined by the Secretary or his designee to be forfeited (such determination to be a final decision under the "Disputes" clause of this agreement), the Participant 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 (g) shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to Subject Inventions.

(h) Examination of Records Relating to Inventions.

(1) The Contracting Officer or his authorized representative, until the expiration of three (3) years after final payment under this Agreement, shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data of the Participant which the Contracting Officer or his authorized representative 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 or his authorized representative shall have the right to examine all books (including laboratory notebooks), records and documents of the Participant relating to the conception of first actual reduction to practice of inventions in the same field of technology as the work under this agreement to determine whether any such inventions are Subject Inventions, if the Participant refuses or fails to:

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

(ii) Maintain and follow such procedures; or

(iii) Correct or eliminate any material deficiency in the procedures within thirty (30) days after the Contracting Officer notifies the Participant of such a deficiency.

(i) Withholding of Payment (Not Applicable to Subcontracts).

(1) Any time before final payment of the amount of this agreement, 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 agreement, whichever is less, shall have been set aside if in his opinion the Participant fails to:

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

21. PATENT RIGHTS - LONG FORM (Cont'd)

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

(iii) Deliver the interim reports pursuant to subparagraph (e)(2)(ii) of this clause; or

(iv) Provide the information regarding subcontracts pursuant to subparagraph (j)(5) of this clause; or

(v) Convey to the Government in a DOE-approved form the title and/or rights of the Government in each Subject Invention as required by this clause.

(2) The reserve or balance shall be withheld until the Contracting Officer has determined that the Participant has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by the clause.

(3) Final payment under this agreement shall not be made by the Contracting Officer before the Participant delivers to Patent Counsel all disclosures of Subject Inventions and other information required by subparagraph (e)(2)(i) of this clause, the final report required by subparagraph (e)(2)(iii) of this clause, and Patent Counsel has issued a patent clearance certification to the Contracting Officer.

(4) The Contracting Officer may, in his discretion, decrease or increase the sums withheld up to the maximum authorized above. If the Participant is a nonprofit organization, the maximum amount that may be withheld under this paragraph shall not exceed \$50,000 or 1 percent of the amount of this agreement, whichever is less. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the agreement. The withholding of any amount or subsequent payment thereof shall not be construed as a waiver of any rights accruing to the Government under this agreement.

(j) Subcontracts.

(1) For the purpose of this paragraph the term "Participant" 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 Contracting Officer, the Participant shall include the Patent Rights clause of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties in any subcontract hereunder having as a purpose the conduct of research, development, or demonstration work. In the event of refusal by a subcontractor to accept this clause, or if in the opinion of the Participant this clause is inconsistent with DOE's patent policies, the Participant:

21. PATENT RIGHTS - LONG FORM (Cont'd)

(i) Shall promptly submit written notice to the 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 Contracting Officer.

(3) Except as may be otherwise provided in this clause, the Participant shall not, in any subcontract or by using a subcontract as consideration therefor, acquire any rights in its subcontractor's Subject Invention for the Participant's own use (as distinguished from such rights as may be required solely to fulfill the Participant's agreement obligations to the Government in the performance of this agreement).

(4) All invention disclosures, reports, instruments, and other information required to be furnished by the subcontractor to DOE, under the provisions of a Patent Rights clause in any subcontract hereunder may, in the discretion of the Contracting Officer, be furnished to the Participant for transmission to DOE.

(5) The Participant shall promptly notify the 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 dates of award, and estimated completion. Upon the request of the Contracting Officer the Participant shall furnish him a copy of the subcontract.

(6) The Participant shall identify all Subject Inventions of the subcontractor of which it acquires knowledge in the performance of this Agreement and shall notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) promptly 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 Participant hereby assigns to the Government all rights that the Participant would have to enforce the subcontractor's obligations for the benefit of the Government with respect to Subject Inventions. The Participant shall not be obligated to enforce the agreements of any subcontractor hereunder relating to the obligations of the subcontractor to the Government regarding Subject Inventions.

21. PATENT RIGHTS - LONG FORM (Cont'd)

(k) Background Patents.

(1) "Background Patent" means a domestic patent covering an invention or discovery which is not a Subject Invention and which is owned or controlled by the Participant at any time through the completion of this agreement:

(i) Which the Participant, but not the Government, has the right to license to others without obligation to pay royalties thereon; and

(ii) Infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this agreement.

(2) The Participant agrees to and does hereby grant to the Government a royalty-free, nonexclusive, license under any Background Patent for purposes of practicing a subject of this agreement by or for the Government in research, development, and demonstration work only.

(3) The Participant also agrees that upon written application by DOE, it will grant to responsible parties for purposes of practicing a subject of this agreement, nonexclusive licenses under any Background Patent on terms that are reasonable under the circumstances. If, however, the Participant believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to DOE for DOE approval of such licensing by the Participant.

(1) Atomic Energy.

(1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Participant or its employees with respect to any invention or discovery made or conceived in the course of or under this agreement.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Participant will obtain patent agreements to effectuate the provisions of subparagraph (1)(1) of this clause from all persons who perform any part of the work under this agreement, except nontechnical personnel, such as clerical employees and manual laborers.

21. PATENT RIGHTS - LONG FORM (Cont'd)

(m) Limitation of Rights. Nothing contained in this Patent Rights clause shall be deemed to give the Government any rights with respect to any invention other than a Subject Invention except as set forth in the Patent Rights article of this Agreement with respect to Background Patents and the Facilities License.

22. FLOOD INSURANCE (10 CFR 600.12) (See under clauses 11., 12, and 13)

23. APPLICABILITY UTILIZATION OF LABOR SURPLUS AREA CONCERNS (FAR 52.220-3) (APR 1984)

(a) Applicability. This clause is applicable if this agreement exceeds the appropriate small purchase limitation in Part 13 of the Federal Acquisition Regulation.

(b) Policy. It is the policy of the Government to award contracts to concerns that agree to perform substantially in labor surplus areas (LSA's) when this can be done consistent with the efficient performance of the agreement and at prices no higher than are obtainable elsewhere. The Participant agrees to use its best efforts to place its subcontracts in accordance with this policy.

(c) Order of Preference. In complying with paragraph (b) above and with paragraph (c) of the clause of this agreement entitled Utilization of Small Business Concerns Owned and Small Disadvantaged Business Concerns, the Participant shall observe the following order of preference in awarding subcontracts: (1) small business concerns that are LSA concerns, (2) other small business concerns, and (3) other LSA concerns.

(d) Definitions. "Labor surplus area," as used in this clause, means a geographical area identified by the Department of Labor in accordance with 20 CFR 654, Subpart A, as an area of concentrated unemployment or underemployment or an area of labor surplus.

"Labor surplus area concern" as used in this clause means a concern that together with its first-tier subcontractors will perform substantially in labor surplus areas. Performance is substantially in labor surplus areas if the costs incurred under the contract on account of manufacturing, production, or performance of appropriate services in labor surplus areas exceed 50 percent of the contract price.

24. DISPUTES (10 CFR 600.26)

(a) Final determination. Whenever practicable, DOE shall attempt to resolve informally any dispute over the award or administration of financial assistance. At the initiative of DOE or upon the written request of an applicant for a continuation award or of a recipient, DOE shall mail (by certified mail) a brief written determination signed by a Contracting Officer, setting forth DOE's final disposition of any dispute which is not resolved informally. Such determination shall contain the following information:

(1) A summary of the dispute, including a statement of the issues and of the positions taken by the Department and the party or parties to the dispute; and

(2) The factual, legal and policy reasons for DOE's disposition of the dispute.

(b) Right of appeal. Except as provided in paragraph (d)(1) of this section, the final determination under paragraph (a) of this section may be appealed to the Financial Assistance Appeals Board (the Board) in accordance with the procedures set forth in 10 CFR Part 1024. If the final determination under paragraph (a) of this section involves a dispute over which the Board has jurisdiction as provided in paragraph (d)(2) of this section, the Contracting Officer's determination shall state that, with respect to such dispute, the determination shall be the final decision of the Department unless, within 60 days, a written notice of appeal is filed. If the final determination under paragraph (a) of this section involves a dispute over which the Board has no jurisdiction as provided in paragraph (d)(1) of this section, the Contracting Officer's determination shall state that, effective immediately or on a later date specified therein, the determination shall, with respect to such dispute, be the final decision of the Department.

(c) Effect of appeal. The filing of an appeal with the Board shall not stay any determination or action taken by DOE which is the subject of the appeal. Consistent with its obligation to protect the interests of the Federal Government, DOE may take such authorized actions as may be necessary to preserve the status quo pending decision by the Board, or to preserve its ability to provide relief in the event the Board decides in favor of the appellant.

(d) Review on appeal.

(1) The Board shall have no jurisdiction to review:

(i) Any preaward dispute (except as provided in paragraph (d)(2)(ii) of this section), including use of any special restrictive condition pursuant to § 600.105;

(ii) DOE denial of a request for a deviation under § 600.4 of this part;

(iii) DOE denial of a request for a budget revision or other change in the approved project under §§ 600.103, 600.114 or 600.271 of this part or under another term or condition of the award;

24. DISPUTES (Cont'd)

(iv) Any DOE action authorized under §§ 600.121(b)(1), (2), (3) or (5) or 600.271 of this part with respect to recipient noncompliance, or such actions authorized by program rule;

(v) Any DOE decision about an action requiring prior DOE approval, under §§ 600.112(g), 600.119, or 600.271 of this part or under another term or condition of the award:

(vi) A DOE decision not to make a continuation award, which decision is based on the insufficiency of available appropriations;

(vii) Any matter which is under the jurisdiction of the Patent Compensation Board (10 CFR 780.3);

(vii) Any matter which may be heard by the Invention Licensing Appeals Board (10 CFR 781.65 and 781.66); or

(ix) Any other dispute not described in paragraph (d)(2) of this section.

(2) In addition to any right of appeal established by program rule, or by the terms and conditions (not inconsistent with paragraph (d)(1) of this section) of an award, the Board shall have jurisdiction to review:

(i) A DOE determination that the recipient has failed to comply with the applicable requirements of this part, the program statute or rules, or other terms and conditions of the award;

(ii) A DOE decision not to make a continuation award based on any of the determinations describe in paragraph (d)(2)(i) of this section;

(iii) Termination of an award for cause, in whole or in part, by DOE;

(iv) A DOE determination that an award is void or invalid;

(v) The application by DOE of an indirect cost rate; and

(vi) DOE disallowance of costs.

(3) In reviewing disputes authorized under paragraph (d)(2) of this section, the Board shall be bound by the applicable law, statutes, and rules, including the requirements of this part, and by the terms and conditions of the award.

(4) The decision of the Board shall be the final decision of the Department.



25. SUBCONTRACTS UNDER COST REIMBURSEMENT AND LETTER AGREEMENTS  
(FAR 52.244-2) (APR 1984)

(a) "Subcontract," as used in this clause, includes but is not limited to purchase orders, and changes and modifications to purchase orders. The Participant shall notify the Contracting Officer reasonably in advance of entering into any subcontract if -

(1) The proposed subcontract is of the cost-reimbursement, time-and-materials, or labor-hour type;

(2) The proposed subcontract is fixed-price and exceeds either \$25,000 or 5 percent of the total estimated cost of this agreement;

(3) The proposed subcontract has experimental, developmental, or research work as one of its purposes; or

(4) This agreement is not a facilities contract and the proposed subcontract provides for the fabrication, purchase, rental, installation, or other acquisition of special test equipment valued in excess of \$10,000 or of any items of industrial facilities.

(b)(1) In the case of a proposed subcontract that (i) is of the cost-reimbursement, time-and-materials, or labor-hour type and is estimated to exceed \$10,000, including any fee, (ii) is proposed to exceed \$100,000, (iii) is one of a number of subcontracts with a single subcontractor, under this agreement for the same or related supplies or services that, in the aggregate, are expected to exceed \$100,000, the advance notification required by paragraph (a) above shall include the information specified in subparagraph (2) below.

(2)(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor and an explanation of why and how the proposed subcontractor was selected, including the competition obtained.

(iv) The proposed subcontract price and the Participant's cost or price analysis.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other agreement provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this agreement.

(vii) A negotiation memorandum reflecting

25. SUBCONTRACTS UNDER COST REIMBURSEMENT AND LETTER AGREEMENTS  
(FAR 52.244-2) (APR 1984) (Cont'd)

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Participant did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Participant and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Participant's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(c) The Participant shall obtain the Contracting Officer's written consent before placing any subcontract for which advance notification is required under paragraph (a) above. However, the Contracting Officer may ratify in writing any such subcontract. Ratification shall constitute the consent of the Contracting Officer.

(d) If the Participant has an approved purchasing system and the subcontract is within the scope of such approval, the Participant may enter into the subcontracts described in subparagraphs (a)(1) and (a)(2) above without the consent of the Contracting Officer, unless this agreement is for the acquisition of major systems, subsystems, or their components.

(e) Even if the Participant's purchasing system has been approved, the Participant shall obtain the Contracting Officer's written consent before placing subcontracts that have been selected for special surveillance and identified in the Schedule of this agreement.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Participant's purchasing system shall constitute a determination (1) of the acceptability of any subcontract terms or conditions (2) of the allowability of any cost under this agreement or (3) to relieve the Participant of any responsibility for performing this agreement.

25. SUBCONTRACTS UNDER COST REIMBURSEMENT AND LETTER AGREEMENTS  
(FAR 52.244-2) (APR 1984) (Cont'd)

(g) No subcontract placed under this agreement shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in subsection 16.301-4 of the Federal Acquisition Regulation (FAR).

(h) The Participant shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Participant by any subcontractor or vendor that, in the opinion of the Participant may result in litigation related in any way to this agreement, with respect to which the Participant may be entitled to reimbursement from the Government.

(i)(1) The Participant shall insert in each price redetermination or incentive price revision subcontract under this agreement the substance of the paragraph "Quarterly limitation on payments statement" of the clause at 52.216-5, Price Redetermination Prospective, 52.216-6, Price Redetermination Retroactive, 52.216-16, Incentive Price Revision-Firm Target, or 52.216-17 Incentive Price Revision-Successive Targets, as appropriate, modified in accordance with the paragraph entitled "Subcontracts" of that clause.

(2) Additionally, the Participant shall include in each cost-reimbursement subcontract under this agreement a requirement that the subcontractor insert the substance of the appropriate modified subparagraph referred to in subparagraph (1) above in each lower tier price redetermination or incentive price revision subcontract under that subcontract.

(j) To facilitate small business participation in subcontracting, the Participant agrees to provide progress payments on subcontracts under this agreement that are fixed-price subcontracts with small business concerns in conformity with the standards for customary progress payments stated in FAR 32.502-1 and 32.504(f), as in effect on the date of this agreement. The Participant further agrees that the need for such progress payments will not be considered a handicap or adverse factor in the award of subcontracts.

(k) The Government reserves the right to review the Participant's purchasing system as set forth in FAR Subpart 44.3.

26. TERMINATION - COST REIMBURSEMENT (FAR 52.249-6) (APR 1984)

NOTE: This clause applies to this contract unless the contractor is an educational or nonprofit institution, and the contract makes no provision for the payment of a profit or fee.

(a) The Government may terminate performance of work under this agreement in whole or, from time to time, in part, if-

(1) The Contracting Officer determines that a termination is in the Government's interest; or

26. TERMINATION - COST REIMBURSEMENT (FAR 52.249-6) (APR 1984) (Cont'd)

(2) The Participant defaults in performing this contract and fails to cure the default within 10 days (unless extended by the Contracting Officer) after receiving a notice specifying the default. "Default" includes failure to make progress in the work so as to endanger performance.

(b) The Contracting Officer shall terminate by delivering to the Participant a Notice of Termination specifying whether termination is for default of the Participant or for convenience of the Government, the extent of termination, and the effective date. If, after termination for default, it is determined that the Participant was not in default or that Participant failure to perform or to make progress in performance is due to causes beyond the control and without the fault or negligence of the Participant as set forth in the Excusable Delays clause, the rights and obligations of the parties will be the same as if the termination was for the convenience of the Government.

(c) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Participant shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause), except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Participant under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts, the cost of which would be reimbursable in whole or in part, under this agreement; approval or ratification will be final for purposes of this clause.

(6) Transfer title (if not already transferred) and, as directed by the Contracting Officer, deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, (ii) the completed or partially completed plans, drawings, information, and other property that, if the agreement had been completed, would be required to be furnished to the Government, and (iii) the jigs, dies, fixtures, and other special tools and tooling acquired or manufactured for this agreement, the cost of which the Participant has been or will be reimbursed under this agreement.

26. TERMINATION - COST REIMBURSEMENT (FAR 52.249-6) (APR 1984) (Cont'd)

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this agreement that is in the possession of the Participant and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (6) above; provided, however, that the Participant (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this agreement, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Participant may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Participant may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept the items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Participant shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Participant shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Participant within this 1-year period. However, if the Contracting Officer determines that the fact justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Participant fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Participant because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) above, the Participant and the Contracting Officer may agree on the whole or any part of the amount to be paid (including an allowance for fee) because of the termination. The agreement shall be amended, and the Participant paid the agreed amount.

(g) If the Participant and the Contracting Officer fail to agree in whole or in part on the amount of costs and/or fee to be paid because of the termination of work, the Contracting Officer shall determine, on the basis of information available, the amount, if any, due the Participant, and shall pay that amount, which shall include the following:

26. TERMINATION - COST REIMBURSEMENT (FAR 52.249-6) (APR 1984) (Cont'd)

(1) All costs reimbursable under this agreement, not previously paid, for the performance of this agreement before the effective date of the termination, and part of those costs that may continue for a reasonable time with the approval of or as directed by the Contracting Officer; however, the Participant shall discontinue those costs as rapidly as practicable.

(2) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the agreement if not included in subparagraph (1) above.

(3) The reasonable cost of settlement of the work terminated, including -

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory. If the termination is for default, no amounts for the preparation of the Participant's termination settlement proposal may be included.

(4) A portion of the fee payable under the agreement, determined as follows:

(i) If the agreement is terminated for the convenience of the Government, the settlement shall include a percentage of the fee equal to the percentage of completion of work contemplated under the agreement, but excluding subcontract effort included in subcontractors' termination proposals, less previous payments for fee.

(ii) If the agreement is terminated for default, the total fee payable shall be such proportionate part of the fee as the total number of articles (or amount of services) delivered to and accepted by the Government is to the total number of articles (or amount of services) of a like kind required by the agreement.

(5) If the settlement includes only fee, it will be determined under subparagraph (g)(4) above.

(h) The cost principles and procedures in Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all cost claimed, agreed to, or determined under this clause.

(i) The Participant shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e) or (g) above or paragraph (k) below, except that if the Participant failed to submit the termination settlement proposal within the time provided in

26. TERMINATION - COST REIMBURSEMENT (FAR 52.249-6) (APR 1984) (Cont'd)

paragraph (e) and failed to request a time extension, there is no right of appeal. If the Contracting Officer has made a determination of the amount due under paragraph (e), (g) or (k), the Government shall pay the Participant (1) the amount determined by the Contracting Officer if there is no right of appeal or if no timely appeal has been taken, or (2) the amount finally determined on an appeal.

(j) In arriving at the amount due the Participant under this clause, there shall be deducted-

(1) All unliquidated advance or other payments to the Participant, under the terminated portion of this agreement;

(2) Any claim which the Government has against the Participant under this agreement; and

(3) The agreed price for, or the proceeds of sale of materials, supplies, or other things acquired by the Participant or sold under this clause and not recovered by or credited to the Government.

(k) The Participant and Contracting Officer must agree to any equitable adjustment in fee for the continued portion of the agreement when there is a partial termination. The Contracting Officer shall amend the Cooperative Agreement to reflect the agreement.

(1)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Participant for the terminated portion of the agreement, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Participant will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Participant shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Participant to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Participant's termination settlement proposal because of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(m) The provisions of this clause relating to fee are inapplicable if this agreement does not include a fee.

27. PATENT INDEMNITY (41 CFR9-9.103-3(b)) (JUN 1979)

The Participant shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of U.S. Letter Patent (except U.S. Letters Patent issued upon an application which is now or may hereafter be kept secret or otherwise withheld from issue by order

27. PATENT INDEMNITY (41 CFR9-9.103-3(b)) (JUN 1979) (Cont'd)

of the Government) resulting from the Participant's: (a) furnishing or supplying standard parts or components which have been sold or offered for sale to the public on the commercial open market; or (b) utilizing its normal practices or methods which normally are or have been used in providing goods and services in the commercial open market, in the performance of the Agreement; or (c) utilizing any parts, components, practices, or methods to the extent to which the Participant has secured indemnification from liability. The foregoing indemnity shall not apply unless the Participant shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement, and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in the defense thereof; and further, such indemnity shall not apply to a claimed infringement which is settled without the consent of the Participant, unless required by final decree of a court of competent jurisdiction or to an infringement resulting from addition to or change in such supplies or components furnished or construction work performed for which addition or change was made subsequent to delivery or performance by the Participant.

28. LIMITATION OF COST (FAR 52.232-20) (APR 1984)

NOTE: This clause applies to this agreement if it is a fully-funded agreement.

(a) The parties estimate that performance of this agreement, exclusive of any fee, will not cost the Government more than (1) the estimated cost specified in the Schedule or, (2) if this is a cost-sharing agreement, the Government's share of the estimated cost specified in the Schedule. The Participant agrees to use its best efforts to perform the work specified in the Schedule and all obligations under this agreement within the estimated cost, which, if this is a cost-sharing agreement, includes both the Government's and the Participant's share of the cost.

(b) The Participant shall notify the Contracting Officer in writing whenever it has reason to believe that-

(1) The costs the Participant expects to incur under this agreement in the next 60 days, when added to all costs previously incurred, will exceed 75 percent of the estimated cost specified in the Schedule; or

(2) The total cost for the performance of this agreement, exclusive of any fee, will be either greater or substantially less than had been previously estimated.

(c) As part of the notification, the Participant shall provide the Contracting Officer a revised estimate of the total cost of performing this agreement.



28. LIMITATION OF COST (FAR 52.232-20) (APR 1984) (Cont'd)

(d) Except as required by other provisions of this agreement, specifically citing and stated to be an exception of this clause-

(1) The Government is not obligated to reimburse the Participant for costs incurred in excess of (i) the estimated cost specified in the Schedule or, (ii) if this is a cost-sharing agreement, the estimated cost to the Government specified in the Schedule; and

(2) The Participant is not obligated to continue performance under this agreement (including actions under the Termination clause of this agreement) or otherwise incur costs in excess of the estimated cost specified in the Schedule, until the Contracting Officer (i) notifies the Participant in writing that the estimated cost has been increased and (ii) provides a revised estimated total cost of performing this agreement. If this is a cost-sharing agreement, the increase shall be allocated in accordance with the formula specified in the Schedule.

(e) No notice, communication, or representation in any form other than that specified in subparagraph (d)(2) above, or from any person other than the Contracting Officer, shall affect this agreement's estimated cost to the Government. In the absence of the specified notice, the Government is not obligated to reimburse the Participant for any costs in excess of the estimated cost or, if this is a cost-sharing agreement, for any costs in excess of the estimated cost to the Government specified in the Schedule, whether those excess costs were incurred during the course of the agreement or as a result of termination.

(f) If the estimated cost specified in the Schedule is increased, any costs the Participant incurs before the increase that are in excess of the previously estimated cost shall be allowable to the same extent as if incurred afterward, unless the Contracting Officer issues a termination or other notice directing that the increase is solely to cover termination or other specified expenses.

(g) Change orders shall not be considered an authorization to exceed the estimated cost to the Government specified in the Schedule, unless they contain a statement increasing the estimated cost.

(h) If this agreement is terminated or the estimated cost is not increased, the Government and the Participant shall negotiate an equitable distribution of all property produced or purchased under the agreement, based upon the share of costs incurred by each.

29. ALLOWABLE COST AND PAYMENT (DEAR 952.216-7) (APR 1984)

(a) Invoicing. The Government shall make payments to the Participant when requested as work progresses, but (except for small business concerns) not more often than once a month, in amounts determined to be allowable by the Contracting Officer in accordance with the applicable cost principles of the Federal Acquisition Regulation (FAR) and the DOE Acquisition Regulation (DEAR) in effect on the date of this agreement and their terms of this agreement. The applicable cost principles are:

29. ALLOWABLE COST AND PAYMENT (DEAR 952.216-7) (APR 1984) (Cont'd)

(i) FAR Subpart 31.2 and DEAR Subpart 931.2, if the Participant is a commercial organization;

(ii) OMB Circular A-21, if the Participant is an educational institution;

(iii) OMB Circular A-87, if the Participant is a state or local government or Federally recognized Indian tribal government; or

(iv) OMB Circular A-122, if the Participant is a nonprofit organization.

(1) The Participant may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this agreement.

(b) Reimbursing costs. (1) For the purpose of reimbursing allowable costs (except as provided in subparagraph (2) below, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions) the term "costs" includes only.

(i) Those recorded costs that, at the time of the request for reimbursement, the Participant has paid by cash, check, or other form of actual payment for items or services purchased directly for the agreement;

(ii) When the Participant is not delinquent in paying costs of agreement performance in the ordinary course of business, costs incurred, but not necessarily paid, for-

(A) Materials issued from the Participant's inventory and placed in the production process for use on the agreement;

(B) Direct labor;

(C) Direct travel;

(D) Other direct in-house costs; and

(E) Properly allocable and allowable indirect costs, as shown in the records maintained by the Participant for purposes of obtaining reimbursement under Government agreements; and

(iii) The amount of progress payments that have been paid to the Participant's subcontractors under similar cost standards.

29. ALLOWABLE COST AND PAYMENT (DEAR 952.216-7) (APR 1984) (Cont'd)

(2) Participant contributions to any pension, profit-sharing, or employee stock ownership plan funds that are paid quarterly or more often may be included in indirect costs for payment purposes; provided, that the Participant pays the contribution to the fund within 30 days after the close of the period covered. Payments made 30 days or more after the close of a period shall not be included until the Participant actually makes the payment. Accrued costs for such contributions that are paid less often than quarterly shall be excluded from indirect costs for payment purposes until the Participant actually makes the payment.

(3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) below, allowable indirect costs under this agreement shall be obtained by applying indirect cost rates established in accordance with paragraph (d) below.

(4) Any statements in specifications or other documents incorporated in this agreement by reference designating performance of services or furnishing of materials at the Participant's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) Small business concern. A small business concern may be paid more often than every 2 weeks and may invoice and be paid for recorded costs for items or services purchased directly for the agreement, even though the concern has not yet paid for those items or services.

(d) Final indirect cost rates. (1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

(2) The Participant shall, within 90 days after the expiration of each of its fiscal years, or by a later date approved by the Contracting Officer, submit to the cognizant Contracting Officer responsible for negotiating its final indirect cost rates and, if required by agency procedures, to the cognizant audit activity proposed final indirect cost rates for that period and supporting cost data specifying the agreement and/or subagreement to which the rates apply. The proposed rates shall be based on the Participant's actual cost experience for that period. The appropriate Government representative and Participant shall establish the final indirect cost rates as promptly as practical after receipt of the Participant's proposal.

(3) The Participant and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed-upon final annual indirect cost rates, (ii) the bases to which the rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected agreement

29. ALLOWABLE COST AND PAYMENT (DEAR 952.216-7) (APR 1984) (Cont'd)

and/or subagreement, identifying any with advance agreements or special terms and the applicable rates. The understanding shall not change any monetary ceiling, agreement obligation, or specific cost allowable or disallowance provided for in this agreement. The understanding is incorporated into this agreement upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(e) Billing rates. Until final annual indirect cost rates are established for any period, the Government shall reimburse the Participant at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates-

(1) Shall be the anticipated final rates; and

(2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) Quick-closeout procedures. When the Participant and Contracting Officer agree, the quick-closeout procedures of Subpart 42.7 of the FAR may be used.

(g) Audit. At any time or times before final payment, the Contracting Officer may have the Participant's invoices or vouchers and statements of cost audited. Any payment may be (1) reduced by amounts found by the Contracting Officer not to constitute allowable costs or (2) adjusted for prior overpayments or underpayments.

(h) Final payment. (1) The Participant shall submit a completion invoice or voucher, designated as such, promptly upon completion of the work, but no later than one year (or longer, as the Contracting Officer may approve in writing) from the completion date. Upon approval of that invoice or voucher, and upon the Participant's compliance with all terms of this agreement, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

(2) The Participant shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Participant or any assignee under this agreement, to the extent that those amounts are properly allocable to costs for which the Participant has been reimbursed by the Government. Reasonable expenses incurred by the Participant for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this agreement, the Participant and each assignee whose assignment is in effect at the time of final payment shall execute and deliver-

29. ALLOWABLE COST AND PAYMENT (DEAR 952.216-7) (APR 1984) (Cont'd)

(i) An assignment to the government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Participant has been reimbursed by the Government under this agreement; and

(ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this agreement, except-

(A) Specified claims stated in exact amount, or in estimated amounts when the exact amounts are not known;

(B) Claims (including reasonable incidental expenses) based upon liabilities of the Participant to third parties arising out of the performance of this agreement; provided, that the claims are not known to the Participant on the date of the execution of the release, and that the Participant gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and

(C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Participant under the patent clauses of this agreement, excluding, however, any expenses arising from the Participant's indemnification of the Government against patent liability.

30. BUY AMERICAN ACT (FAR 52.225-5) (APR 1984)

(a) The Buy American Act (41 U.S.C. 10) provides that the Government give preference to domestic construction material.

"Components," as used in this clause, means those articles, materials, and supplies incorporated directly into construction materials.

"Construction materials," as used in this clause, means articles, materials, and supplies brought to the construction site for incorporation into the building or work.

"Domestic construction material" as used in this clause, means (1) an unmanufactured construction material mined or produced in the United States, or (2) a construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as the construction materials determined to be unavailable pursuant to subparagraph 25.202(a)(3) of the Federal Acquisition Regulation (FAR) shall be treated as domestic.

30. BUY AMERICAN ACT (FAR 52.225-5)(APR 1984) (Cont'd)

(b) The Participant agrees that only domestic construction material will be used by the Participant, subcontractors, materialmen, and suppliers in the performance of this agreement except for foreign construction materials, if any listed in this agreement.

(The foregoing requirements are administered in accordance with Executive Order No. 10582, dated December 17, 1954, as amended, and Subpart 25.2 of the FAR).

31. ADDITIONAL TECHNICAL DATA REQUIREMENTS (DEAR 952.227-73)(APR 1984)

(a) In addition to the technical data specified elsewhere in this agreement to be delivered, the Contracting Officer may at any time during the agreement performance or within one year after final payment call for the Participant to deliver any technical data first produced or specifically used in the performance of this agreement except technical data pertaining to items of standard commercial design.

(b) The provisions of the "Rights in Technical Data" clause included in this agreement are applicable to all technical data called for under this Additional Technical Data Requirements clause. Accordingly, nothing contained in this clause shall require the Participant to actually deliver any technical data, the delivery of which is excused by paragraph (e) of the "Rights in Technical Data" clause.

(c) When technical data are to be delivered under this clause, the Participant will be compensated for appropriate costs for converting such data into the prescribed form, for reproduction, and for delivery.

32. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS (FAR 52.219-8)(APR 1984)

(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 performing agreements let by any Federal agency.

(b) The Participant hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient agreement performance. The Participant further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Participant's compliance with this clause.

(c) As used in this agreement, the term "small business concern" shall mean a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

32. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS (FAR 52.219-8) (APR 1984) (Cont'd)

The term "small business concern owned and controlled by socially and economically disadvantaged individuals" shall mean a small business concern -

(1) 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

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

The Participant shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans, and other minorities, or any other individual found to be disadvantaged by the Administration pursuant to Section 8(a) of the Small Business Act.

(d) Participants acting in good faith may rely on written representations by their subcontractors regarding their status as either a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.

33. UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES (FAR 52.219-13) (APR 1984)

(a) "Women-owned small businesses," as used in this clause, means businesses that are at least 51 percent owned by women who are United States citizens and who also control and operate the business.

"Control," as used in this clause, means exercising the power to make policy decisions.

"Operate," as used in this clause, means being actively involved in the day-to-day management of the business.

(b) It is the policy of the United States that women-owned small businesses shall have the maximum practicable opportunity to participate in performing agreements awarded by any Federal agency.

(c) The Participant agrees to use its best efforts to give women-owned small businesses the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with the efficient performance of its agreement.

#### 34. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS

The clauses set forth in the following paragraphs shall be included in full by the contracting agency in every contract entered into by the United States or the District of Columbia, in excess of \$2,500, or in an indefinite amount, the principal purpose of which is to furnish services through the use of service employees:

(a) Service Contract Act of 1965, as amended: This agreement is subject to the Service Contract Act of 1965, as amended (41U.S.C. 351 et seq.) and is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor issued thereunder (29 CFR Part 4).

(b)(1) Each service employee employed in the performance of this agreement by the Participant or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor or authorized representative, as specified in any wage determination attached to this agreement.

(2)(i) If there is such a wage determination attached to this agreement, the Contracting Officer shall require that any class of service employee which is not listed therein and which is to be employed under the agreement (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the Participant so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this section. (The information collection requirements contained in the following paragraphs of this section have been approved by the Office of Management and Budget under OMB control number 1215-0150.)

(ii) Such conforming procedure shall be initiated by the Participant prior to the performance of agreement work by such unlisted class of employee. A written report of the proposed conforming action, including information regarding the agreement or disagreement of the authorized representative of the employees involved or, where there is no authorized representative, the employees themselves, shall be submitted by the Participant to the contracting officer no later than 30 days after such unlisted class of employees performs any agreement work. The Contracting Officer shall review the proposed action and promptly submit a report of the action, together with the agency's recommendations and all pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.



34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Participant of the action taken. Each affected employee shall be furnished by the Participant with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv)(A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of an agreement modification, an exercise of an option or extension of an existing agreement, or in any other case where a Participant succeeds an agreement under which the classification in question was previously conformed pursuant to this section, a new conformed wage rate and fringe benefits may be assigned to such conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the agreement which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of agreement work by the unlisted class of employees, the Participant shall advise the Contracting Officer of the action taken but the other procedures in paragraph (b)(2)(ii) of this section need not be followed.

(C) No employee engaged in performing work on this agreement shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined pursuant to paragraphs (b)(2)(i) and (ii) of this section shall be paid to all employees performing in the classification from the first day on which agreement work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced agreement work shall be a violation of the Act and this agreement.

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(vi) Upon discovery of failure to comply with paragraphs (b)(2)(i) through (v) of this section, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class of employees commenced agreement work.

(3) If, as authorized pursuant to section 4(d) of the Service Contract Act of 1965 as amended, the term of this agreement is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees shall be subject to adjustment after 1 year and not less often than once every 2 years, pursuant to wage determinations to be issued by the Wage and Hour Division, Employment Standards Administration of the Department of Labor as provided in such Act.

(c) The participant or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined conformably thereto by furnishing any equivalent combinations of bona fide fringe benefits, or by making equivalent or differential payments in cash in accordance with the applicable rules set forth in Subpart D of 29 CFR Part 4, and not otherwise.

(d)(1) In the absence of a minimum wage attachment for this agreement, neither the Participant nor any subcontractor under this agreement shall pay any person performing work under the agreement (regardless of whether they are service employees) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this provision shall relieve the Participant or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.

(2) If this agreement succeeds a contract, subject to the Service Contract Act of 1965 as amended, under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this agreement setting forth such collectively bargained wage rates and fringe benefits, neither the Participant nor any subcontractor under this agreement shall pay any service employee performing any of the agreement work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreements, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Participant or subcontractor under this agreement may be relieved of the foregoing obligation unless the limitations of 4.1b(b) of 29 CFR Part 4 apply or unless the Secretary of Labor or his authorized representative finds, after a hearing as provided in 4.10 of 29 CFR Part 4 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 4.11 of 29 CFR Part 4, that the collective

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR Part 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor contractor's collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the agreement or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of an agreement or subcontract, 53 Comp. Gen. 401 (1973). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(e) The Participant and any subcontractor under this agreement shall notify each service employee commencing work on this agreement of the minimum monetary wage and any fringe benefits required to be paid pursuant to this agreement, or shall post the wage determination attached to this agreement. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this agreement. (Approved by the Office of Management and Budget under OMB control number 1215-0150).

(f) The Participant or subcontractor shall not permit any part of the services called for by this agreement to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Participant or subcontractor which are unsanitary or hazardous or dangerous to the health or safety of service employees engaged to furnish these services, and the Participant or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(g)(1) The Participant and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work records containing the information specified in paragraphs (g)(1)(i) through (vi) of this section for each employee subject to the Act and shall make them available for inspection and transcription by authorized representatives of the Wage and Hour Division. Employment Standards Administration of the U.S. Department of Labor, (Sections 4.6(g)(1)(i) through (iv) approved by the Office of Management and Budget under OMB control number 1215-0017 and sections 4.6(g)(1)(v) and (vi) approved under OMB control numbers 1215-0150.):

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(i) Name and address and social security number of each employee.

(ii) The correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of fringe benefit payments in lieu thereof, and total daily and weekly compensation of each employee.

(iii) The number of daily and weekly hours so worked by each employee.

(iv) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(v) A list of monetary wages and fringe benefits for those classes of service employees not included in the wage determination attached to this agreement but for which such wage rates or fringe benefits have been determined by the interested parties or by the Administrator or authorized representative pursuant to the labor standards clause in paragraph (b) of this section. A copy of the report required by the clause in paragraph (b)(2)(ii) of this section shall be deemed to be such a list.

(vi) Any list of the predecessor contractor's employees which had been furnished to the Participant pursuant to 4.6(1)(2).

(2) The Participant shall also make available copy inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available such records for inspection and transcription shall be a violation of the regulations and this agreement, and in the case of failure to produce such records, the Contracting Officer, upon direction of the Department of Labor and notification of the contractor, shall take action to cause suspension of any further payment or advance of funds until such violation ceases.

(4) The Participant shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(h) The Participant shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or Regulations, 29 CFR Part 4), rebate, or kickback on any account. Such payments shall be made no later than one pay period following the end of the regular pay period in which such wages were earned or accrued. A pay period under this act may not be of any duration longer than semi-monthly.

(i) The Contracting Officer shall withhold or cause to be withheld from the Government prime Participant under this or any other Government agreement or contract with the prime Participant such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the Participant or subcontractor. In the event of failure to pay any employees subject to the

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

Act all or part of the wages or fringe benefits due under the Act, the agency may, after authorization or by direction of the Department of Labor and written notification to the Participant, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of these clauses relating to the Service Contract Act of 1965, may be grounds for termination of the right to proceed with the agreement work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Participant in default with any additional cost.

(j) The Participant agrees to insert these clauses in this section relating to the Service Contract Act of 1965 in all subcontracts subject to the Act. The term "contractor" as used in these clauses in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government prime Participant."

(k)(1) As used in these clauses, the term "service employee" means any person engaged in the performance of this agreement other than any person employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in Part 541 of Title 29, Code of Federal Regulations, as of July 30, 1976, and any subsequent revision of those regulations. The term "service employee" includes all such personal regardless of any contractor relationship that may be alleged to exist between a Participant or subcontractor and such persons.

(2) The following statement is included in agreements pursuant to section 2(a)(5) of the Act and is for informational purposes only.

The following classes of service employees expected to be employed under the agreement with the Government would be subject, if employed by the contracting agency, to the provisions of 5 U.S.C. 5341 or 5 U.S.C. 5332 and would, if so employed, be paid not less than the following rates of wages and fringe benefits:

(1)(1) If wages to be paid or fringe benefits to be furnished any service employees employed by the Government prime Participant or any subcontractor under the agreement are provided for in a collective bargaining agreement which is or will be effective during any period in which the agreement is being performed, the Government prime Participant shall report such fact to the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the agreement and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the agreement, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of agreement performance, such agreements shall be reported promptly after negotiation thereof. (Approved by the Office of Management and Budget under OMB control number 1215-0150.)

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(2) Not less than 10 days prior to completion of any agreement being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a contractor (predecessor) or successor ( 4.173 of Regulations, 29 CFR Part 4), the incumbent prime Participant shall furnish to the Contracting Officer a certified list of the names of all service employees on the Participant's or subcontractor's payroll during the last month of agreement performance. Such list shall also contain anniversary dates of employment on the agreement either with the current or predecessor contractors of each such service employee. The Contracting Officer shall turn over such list to the successor contractor at the commencement of the succeeding contract. (Approved by the Office of Management and Budget under OMB control number 1215-0150.)

(m) Rulings and interpretations of the Service Contract Act of 1965, as amended are contained in Regulations, 29 CFR Part 4.

(n)(1) By entering into this agreement, the Participant (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Participant's firm is a person or firm ineligible to be awarded Government agreements by virtue of the sanctions imposed pursuant to section 5 of the Act.

(2) No part of this agreement shall be subcontracted to any person or firm ineligible for award of a Government contract pursuant to section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(o) Notwithstanding any of the clauses in paragraphs (b) through (m) of this section relating to the Service Contract Act of 1965, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business:

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical, or mental deficiency or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Service Contract Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of that Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Service Contract Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel, such certificates in accordance with the regulations in Parts 525 and 528 of Title 29 of the Code of Federal Regulations.

(p) Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the agreement work in any craft classification shall not be greater than the ratio permitted to the Participant as to its entire work force under the registered program.

(q) An employee engaged in an occupation in which he or she customarily and regularly receives more than \$30 a month in tips may have the amount of tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act in accordance with section 3(m) of the Fair Labor Standards Act and Regulations, 29 CFR Part 531: Provided, however, That the amount of such credit may not exceed \$1.24 per hour beginning January 1, 1980, and \$1.34 per hour after December 31, 1980. To utilize this proviso:

(1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized:

(2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received):

(3) The employer must be able to show by records that the employee received at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; (approved by the Office of Management and Budget under OMB control number 1215-0017);

(4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

34. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(r) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this agreement shall not be subject to the general disputes clause of this agreement. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 4, 6, and 8. Disputes within the meaning of this clause include disputes between the Participant (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or employees or their representatives.



GENERAL PROVISIONS FOR  
COOPERATIVE AGREEMENTS WITH  
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GENERAL PROVISIONS FOR  
COOPERATIVE AGREEMENTS WITH STATE AND LOCAL  
GOVERNMENTS AND INDIAN TRIBES

1. OMB CIRCULAR A-102

OMB Circular A-102 is applicable to this Agreement and is hereby incorporated by this reference.

2. OMB CIRCULAR A-87

OMB Circular A-87 is applicable to this Agreement and is hereby incorporated by reference.

3. RIGHTS TO PROPSOAL DATA

Except for technical data contained on pages (none) of the Contractor's proposal dated (none) which are asserted by the Contractor as being proprietary data, it is agreed that, as a condition of the award of this notice appearing on the proposal, the Government shall have the right to use, duplicate, disclose and have others do so for any purpose whatsoever, the technical data contained in the proposal upon which this contract is based.

4. RIGHTS IN TECHNICAL DATA - SHORT FORM

(a) Definitions. The definitions of terms set forth in 41 CFR 9-9.201 apply to the extent these terms are used herein.

(b) Allocation of rights.

(1) The Government shall have:

- (i) Unlimited rights in technical data first produced or specifically used in the performance of this agreement.
- (ii) The right of the Contracting Officer or his representatives to inspect at all reasonable times up to three years after final payment under this agreement all technical data first produced or specifically used in the agreement (for which inspection the Participant or its subcontractor shall afford proper facilities to DOE); and
- (iii) The right to have any technical data first produced or specifically used in the performance of this agreement delivered to the Government as the Contracting Officer may from time to time direct during the progress of the work or in any event as the Contracting Officer shall direct upon completion or termination of this Agreement.

4. RIGHTS IN TECHNICAL DATA - SHORT FORM (Cont'd)

(2) The Participant shall have: The right to use for its private purposes, subject to patent, security or other provisions of this agreement, technical data it first produces in the performance of this agreement provided the data requirements of this agreement have been met as of the date of the private use of such data. The Participant agrees that to the extent it receives or is given access to proprietary data or other technical, business or financial data in the form of recorded information from DOE or a DOE contractor or subcontractor, the Participant shall treat such data in accordance with any restrictive legend contained thereon, unless use is specifically authorized by prior written approval of the Contracting Officer.

(c) Copyrighted material.

(1) The Participant agrees to and does hereby grant to the Government and to others acting on its behalf:

(i) A royalty-free, nonexclusive, irrevocable, world-wide license for Governmental purposes to reproduce, distribute, display, and perform all copyrightable material first produced or composed in the performance of this agreement by the Participant, its employees or any individual or concern specifically employed or assigned to originate and prepare such material and to prepare derivative works based thereon;

(ii) A license as aforesaid under any and all copyrighted or copyrightable work not first produced or composed by the Participant in the performance of this agreement but which is incorporated in the material furnished under the agreement, provided that such license shall be only to the extent the Participant now has, or prior to completion or closeout of the agreement may acquire the right to agreement such license without becoming liable to pay compensation to others solely because of such grant.

(2) The Participant agrees that it will not knowingly include any material copyrighted by others in any written or copyrightable material furnished or delivered under this agreement without a license as provided for in subparagraph (1)(ii) hereof, or without the consent of the copyright owner, unless it obtains specific written approval of the Contracting Officer for the inclusion of such copyrighted material.

5. PATENT RIGHTS - SHORT FORM (MARCH 1982)

(a) Definitions.

(1) "Subject Invention" means any invention or discovery of the Participant conceived or first actually reduced to practice in the course of or under this agreement and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented, under the patent laws of the United States of America or any foreign country.

(2) "Patent Counsel" means DOE Patent Counsel assisting the procuring activity.

(b) Invention disclosures and reports.

(1) The Participant shall furnish the Patent Counsel (with notification by Patent Counsel to the Contracting Officer):

(i) A written report containing full and complete technical information concerning each subject invention within 6 months after conception or first actual reduction to practice but in any event prior to any sale, public use, or public disclosure of such invention known to the Participant. The report shall identify the agreement and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram 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) Upon request, but not more than annually, interim reports on a DOE-approved form listing subject inventions for that period and certifying that all subject inventions have been disclosed or that there were no such inventions; and

(iii) A final report on a DOE-approved form within 3 months after completion of the agreement work listing all subject inventions and certifying that all subject inventions have been disclosed or that there were no such inventions.

(2) The Participant 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 the agreement.

5. PATENT RIGHTS - SHORT FORM (Cont'd)(c) Allocation of principal rights.

(1) Assignment to the Government. The Participant agrees to assign to the Government the entire right, title, and interest throughout the world in and to each subject invention, except to the extent that rights are retained by the Participant under paragraphs (c)(2) and (d) of this clause.

(2) Greater rights determination. The Participant, or the employee-inventor with authorization of the Participant, may request greater rights than the nonexclusive license and the foreign patent rights provided in paragraph(d) of this clause on identified inventions in accordance with the procedure and criteria of 41 CFR 9-9.109-6. A request for a determination of whether the Participant or the employee-inventor is entitled to retain such greater rights must be submitted to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) at the time of the first disclosure of the invention pursuant to subparagraph (b)(1) of this clause or not later than 9 months after conception or first actual reduction to practice, whichever occurs first, or such longer period as may be authorized by the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Participant. The information to be submitted for greater rights determination is specified in 41 CFR 9-9.109-6(e).

(d) Minimum rights to the Participant. The Participant reserves a revocable, nonexclusive, paid-up license in each patent application filed in any country on a subject invention and any resulting patent in which the Government acquires title. Revocation shall be in accordance with the procedures of paragraphs (c)(2) and (3) of the clause in 41 CFR 9-9.107-5(a). The Participant also has the right to request foreign rights in accordance with the procedures of paragraph (c)(4) of the clause in 41 CFR 9-9.107-5(a).

(e) Employee and subcontractor agreements. Unless otherwise authorized in writing by the Contracting Officer, the Participant shall:

(1) Obtain patent agreements to effectuate the provisions of the Patent clause from all persons who perform any part of the work under this agreement except nontechnical personnel, such as clerical employees and manual laborers.

(2) The Participant shall include this clause or the Patent Rights clause of 41 CFR 9-9.107-5(a) or the clause of 600.118(b)(1), as appropriate, modified to identify the parties in any subcontract hereunder having as a purpose the conduct of experimental, research, development, or demonstration work; and

5. PATENT RIGHTS - SHORT FORM (Cont'd)

(3) Promptly notify the Contracting Officer in writing upon the award of any subcontract containing a Patent Rights clause by identifying the contractor, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon the request of the Contracting Officer, the Participant shall furnish a copy of the subcontract to such requestor.

(f) Atomic energy.

(1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Participant or its employees with respect to any inventions or discovery made or conceived in the course of or under this Agreement.

(2) Except as otherwise authorized in writing by the Contracting Officer, the Participant will obtain patent agreements to effectuate the provisions of paragraph(f)(1) of the clause from all persons who perform any part of the work under this agreement except nontechnical personnel, such as clerical employees and manual laborers.

G. Publication. In order that information concerning scientific or technical developments conceived or first actually reduced to practice in the course of or under the agreement is not prematurely published so as to adversely affect patent interest of DOE, the Participant agrees to submit to the Patent Counsel for patent review a copy of each paper 60 days prior to its intended publication date. The Participant may publish such information after expiration of a 60-day period following such submission or prior thereto if specifically approved by the Patent Counsel, unless the Participant is informed (in writing within the 60-day period) that in order to protect patentable subject matter, publication must further be delayed. In this event, publication shall be delayed up to 100 days beyond the 60-day period or such longer period as mutually agreed to.

6. DISPUTES

(a) Final determination. Whenever practicable, DOE shall attempt to resolve informally any dispute over the award or administration of financial assistance. At the initiative of DOE or upon the written request of an applicant for a continuation award or of a recipient, DOE shall mail (by certified mail) a brief written determination signed by a Contracting Officer, setting forth DOE's final disposition of any dispute which is not resolved informally. Such determination shall contain the following information:

(1) A summary of the dispute, including a statement of the issues and of the positions taken by the Department and the party or parties to the dispute; and

6. DISPUTES (Cont'd)

(2) The factual, legal and policy reasons for DOE's disposition of the dispute.

(b) Right of appeal. Except as provided in paragraph (d)(1) of this section, the final determination under paragraph (a) of this section may be appealed to the Financial Assistance Appeals Board (the Board) in accordance with the procedures set forth in 10 CFR Part 1024. If the final determination under paragraph (a) of this section involves a dispute over which the Board has jurisdiction as provided in paragraph (d)(2) of this section, the Contracting Officer's determination shall state that, with respect to such dispute, the determination shall be the final decision of the Department unless, within 60 days, a written notice of appeal is filed. If the final determination under paragraph (a) of this section involves a dispute over which the Board has no jurisdiction as provided in paragraph (d)(1) of this section, the Contracting Officer's determination shall state that, effective immediately or on a later date specified therein, the determination shall, with respect to such dispute, be the final decision of the Department.

(c) Effect of appeal. The filing of an appeal with the Board shall not stay any determination or action taken by DOE which is the subject of the appeal. Consistent with its obligation to protect the interests of the Federal Government, DOE may take such authorized actions as may be necessary to preserve the status quo pending decision by the Board, or to preserve its ability to provide relief in the event the Board decides in favor of the appellant.

(d) Review on appeal.

(1) The Board shall have no jurisdiction to review:

(i) Any preaward dispute (except as provided in paragraph (d)(2)(ii) of this section), including use of any special restrictive condition pursuant to § 600.105;

(ii) DOE denial of a request for a deviation under § 600.4 of this part;

(iii) DOE denial of a request for a budget revision or other change in the approved project under §§ 600.103, 600.114 or 600.271 of this part or under another term or condition of the award;

(iv) Any DOE action authorized under §§ 600.121(b)(1), (2), (3) or (5) or 600.271 of this part with respect to recipient noncompliance, or such actions authorized by program rule;

(v) Any DOE decision about an action requiring prior DOE approval, under §§ 600.112(g), 600.119, or 600.271 of this part or under another term or condition of the award;

6. DISPUTES (Cont'd)

(vi) A DOE decision not to make a continuation award, which decision is based on the insufficiency of available appropriations;

(vii) Any matter which is under the jurisdiction of the Patent Compensation Board (10 CFR 780.3);

(viii) Any matter which may be heard by the Invention Licensing Appeals Board (10 CFR 781.65 and 781.66); or

(ix) Any other dispute not described in paragraph (d)(2) of this section.

(2) In addition to any right of appeal established by program rule, or by the terms and conditions (not inconsistent with paragraph (d)(1) of this section) of an award, the Board shall have jurisdiction to review:

(i) A DOE determination that the recipient has failed to comply with the applicable requirements of this part, the program statute or rules, or other terms and conditions of the award;

(ii) A DOE decision not to make a continuation award based on any of the determinations describe in paragraph (d)(2)(i) of this section;

(iii) Termination of an award for cause, in whole or in part, by DOE;

(iv) A DOE determination that an award is void or invalid;

(v) The application by DOE of an indirect cost rate; and

(vi) DOE disallowance of costs.

(3) In reviewing disputes authorized under paragraph (d)(2) of this section, the Board shall be bound by the applicable law, statutes, and rules, including the requirements of this part, and by the terms and conditions of the award.

(4) The decision of the Board shall be the final decision of the Department.

7. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS

The clauses set forth in the following paragraphs shall be included in full by the contracting agency in every contract entered into by the United States or the District of Columbia, in excess of \$2,500, or in an indefinite amount, the principal purpose of which is to furnish services through the use of service employees:



7. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(a) Service Contract Act of 1965, as amended: This agreement is subject to the Service Contract Act of 1965, as amended (41 U.S.C. 351 et seq.) and is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor issued thereunder (29 CFR Part 4).

(b)(1) Each service employee employed in the performance of this agreement by the Participant or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor or authorized representative, as specified in any wage determination attached to this agreement.

(2)(i) If there is such a wage determination attached to this agreement, the Contracting Officer shall require that any class of service employee which is not listed therein and which is to be employed under the agreement (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the Participant so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this section. (The information collection requirements contained in the following paragraphs of this section have been approved by the Office of Management and Budget under OMB control number 1215-0150.)

(ii) Such conforming procedure shall be initiated by the Participant prior to the performance of agreement work by such unlisted class of employee. A written report of the proposed conforming action, including information regarding the agreement or disagreement of the authorized representative of the employees involved or, where there is no authorized representative, the employees themselves, shall be submitted by the Participant to the contracting officer no later than 30 days after such unlisted class of employees performs any agreement work. The Contracting Officer shall review the proposed action and promptly submit a report of the action, together with the agency's recommendations and all pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Participant of the action taken. Each affected employee shall be furnished by the Participant with a written copy of such determination or it shall be posted as a part of the wage determination.

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(iv) (A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of an agreement modification, an exercise of an option or extension of an existing agreement, or in any other case where a Participant succeeds an agreement under which the classification in question was previously conformed pursuant to this section, a new conformed wage rate and fringe benefits may be assigned to such conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the agreement which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of agreement work by the unlisted class of employees, the Participant shall advise the Contracting Officer of the action taken but the other procedures in paragraph (b)(2)(ii) of this section need not be followed.

(C) No employee engaged in performing work on this agreement shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined pursuant to paragraphs (b)(2)(i) and (ii) of this section shall be paid to all employees performing in the classification from the first day on which agreement work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced agreement work shall be a violation of the Act and this agreement.

(vi) Upon discovery of failure to comply with paragraphs (b)(2)(i) through (v) of this section, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class of employees commenced agreement work.

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(3) If, as authorized pursuant to section 4(d) of the Service Contract Act of 1965 as amended, the term of this agreement is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees shall be subject to adjustment after 1 year and not less often than once every 2 years, pursuant to wage determinations to be issued by the Wage and Hour Division, Employment Standards Administration of the Department of Labor as provided in such Act.

(c) The participant or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined conformably thereto by furnishing any equivalent combinations of bona fide fringe benefits, or by making equivalent or differential payments in cash in accordance with the applicable rules set forth in Subpart D of 29 CFR Part 4, and not otherwise.

(d)(1) In the absence of a minimum wage attachment for this agreement, neither the Participant nor any subcontractor under this agreement shall pay any person performing work under the agreement (regardless of whether they are service employees) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this provision shall relieve the Participant or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.

(2) If this agreement succeeds a contract, subject to the Service Contract Act of 1965 as amended, under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this agreement setting forth such collectively bargained wage rates and fringe benefits, neither the Participant nor any subcontractor under this agreement shall pay any service employee performing any of the agreement work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreements, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Participant or subcontractor under this agreement may be relieved of the foregoing obligation unless the limitations of 4.1b(b) of 29 CFR Part 4 apply or unless the Secretary of Labor or his authorized representative finds, after a hearing as provided in 4.10 of 29 CFR Part 4 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 4.11 of 29 CFR Part 4, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR Part 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor contractor's

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the agreement or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of an agreement or subcontract, 53 Comp. Gen. 401 (1973). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(e) The Participant and any subcontractor under this agreement shall notify each service employee commencing work on this agreement of the minimum monetary wage and any fringe benefits required to be paid pursuant to this agreement, or shall post the wage determination attached to this agreement. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this agreement. (Approved by the Office of Management and Budget under OMB control number 1215-0150).

(f) The Participant or subcontractor shall not permit any part of the services called for by this agreement to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Participant or subcontractor which are unsanitary or hazardous or dangerous to the health or safety of service employees engaged to furnish these services, and the Participant or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(g)(1) The Participant and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work records containing the information specified in paragraphs (g)(1)(i) through (vi) of this section for each employee subject to the Act and shall make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration of the U.S. Department of Labor, (Sections 4.6(g)(1)(i) through (iv) approved by the Office of Management and Budget under OMB control number 1215-0017 and sections 4.6(g)(1)(v) and (vi) approved under OMB control numbers 1215-0150.):

(i) Name and address and social security number of each employee.

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(ii) The correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of fringe benefit payments in lieu thereof, and total daily and weekly compensation of each employee.

(iii) The number of daily and weekly hours so worked by each employee.

(iv) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(v) A list of monetary wages and fringe benefits for those classes of service employees not included in the wage determination attached to this agreement but for which such wage rates or fringe benefits have been determined by the interested parties or by the Administrator or authorized representative pursuant to the labor standards clause in paragraph (b) of this section. A copy of the report required by the clause in paragraph (b)(2)(ii) of this section shall be deemed to be such a list.

(vi) Any list of the predecessor contractor's employees which had been furnished to the Participant pursuant to 4.6(1)(2).

(2) The Participant shall also make available copy inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available such records for inspection and transcription shall be a violation of the regulations and this agreement, and in the case of failure to produce such records, the Contracting Officer, upon direction of the Department of Labor and notification of the contractor, shall take action to cause suspension of any further payment or advance of funds until such violation ceases.

(4) The Participant shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(h) The Participant shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or Regulations, 29 CFR Part 4), rebate, or kickback on any account. Such payments shall be made no later than one pay period following the end of the regular pay period in which such wages were earned or accrued. A pay period under this act may not be of any duration longer than semi-monthly.

(i) The Contracting Officer shall withhold or cause to be withheld from the Government prime Participant under this or any other Government agreement or contract with the prime Participant such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

Participant or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the agency may, after authorization or by direction of the Department of Labor and written notification to the Participant, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of these clauses relating to the Service Contract Act of 1965, may be grounds for termination of the right to proceed with the agreement work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Participant in default with any additional cost.

(j) The Participant agrees to insert these clauses in this section relating to the Service Contract Act of 1965 in all subcontracts subject to the Act. The term "contractor" as used in these clauses in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government prime Participant."

(k)(1) As used in these clauses, the term "service employee" means any person engaged in the performance of this agreement other than any person employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in Part 541 of Title 29, Code of Federal Regulations, as of July 30, 1976, and any subsequent revision of those regulations. The term "service employee" includes all such personal regardless of any contractor relationship that may be alleged to exist between a Participant or subcontractor and such persons.

(2) The following statement is included in agreements pursuant to section 2(a)(5) of the Act and is for informational purposes only.

The following classes of service employees expected to be employed under the agreement with the Government would be subject, if employed by the contracting agency, to the provisions of 5 U.S.C. 5341 or 5 U.S.C. 5 62 and would, if so employed, be paid not less than the following rates of wages and fringe benefits:

(1)(1) If wages to be paid or fringe benefits to be furnished any service employees employed by the Government prime Participant or any subcontractor under the agreement are provided for in a collective bargaining agreement which is or will be effective during any period in which the agreement is being performed, the Government prime Participant shall report such fact to

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the agreement and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance of the agreement, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of agreement performance, such agreements shall be reported promptly after negotiation thereof. (Approved by the Office of Management and Budget under OMB control number 1215-0150.)

(2) Not less than 10 days prior to completion of any agreement being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a contractor (predecessor) or successor ( 4.173 of Regulations, 29 CFR Part 4), the incumbent prime Participant shall furnish to the Contracting Officer a certified list of the names of all service employees on the Participant's or subcontractor's payroll during the last month of agreement performance. Such list shall also contain anniversary dates of employment on the agreement either with the current or predecessor contractors of each such service employee. The Contracting Officer shall turn over such list to the successor contractor at the commencement of the succeeding contract. (Approved by the Office of Management and Budget under OMB control number 1215-0150.)

(m) Rulings and interpretations of the Service Contract Act of 1965, as amended are contained in Regulations, 29 CFR Part 4.

(n)(1) By entering into this agreement, the Participant (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Participant's firm is a person or firm ineligible to be awarded Government agreements by virtue of the sanctions imposed pursuant to section 5 of the Act.

(2) No part of this agreement shall be subcontracted to any person or firm ineligible for award of a Government contract pursuant to section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(o) Notwithstanding any of the clauses in paragraphs (b) through (m) of this section relating to the Service Contract Act of 1965, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business:

7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical, or mental deficiency or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Service Contract Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of that Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Service Contract Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel, such certificates in accordance with the regulations in Parts 525 and 528 of Title 29 of the Code of Federal Regulations.

(p) Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the agreement work in any craft classification shall not be greater than the ratio permitted to the Participant as to its entire work force under the registered program.

(q) An employee engaged in an occupation in which he or she customarily and regularly receives more than \$30 a month in tips may have the amount of tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act in accordance with section 3(m) of the Fair Labor Standards Act and Regulations, 29 CFR Part 531: Provided,



7. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

however, That the amount of such credit may not exceed \$1.24 per hour beginning January 1, 1980, and \$1.34 per hour after December 31, 1980. To utilize this proviso:

(1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized:

(2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received):

(3) The employer must be able to show by records that the employee received at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; (approved by the Office of Management and Budget under OMB control number 1215-0017);

(4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of Section 4(c) of the Act.

(r) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this agreement shall not be subject to the general disputes clause of this agreement. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 4, 6, and 8. Disputes within the meaning of this clause include disputes between the Participant (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or employees or their representatives.

GENERAL PROVISIONS FOR  
COOPERATIVE AGREEMENTS WITH INSTITUTIONS OF  
HIGHER EDUCATION, HOSPITALS, AND OTHER NONPROFIT ORGANIZATIONS

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GENERAL PROVISIONS FOR  
COOPERATIVE AGREEMENTS WITH INSTITUTIONS OF  
HIGHER EDUCATION, HOSPITALS, AND OTHER NONPROFIT ORGANIZATIONS

1. OMB CIRCULAR A-110

OMB Circular A-110 is applicable to this Agreement and is hereby incorporated by this reference.

2. OMB CIRCULAR A-21

OMB Circular A-21 is applicable to this Agreement if the Participant is an Institution of Higher Education, and is hereby incorporated by reference.

3. OMB CIRCULAR A-122

OMB Circular A-122 is applicable to this Agreement if the Participant is an non-profit, and is hereby incorporated by reference.

4. RIGHTS TO PROPOSAL DATA

Except for technical data contained on pages (none) of the Contractor's proposal dated (none) which are asserted by the Contractor as being proprietary data, it is agreed that, as a condition of the award of this notice appearing on the proposal, the Government shall have the right to use, duplicate, disclose and have others do so for any purpose whatsoever, the technical data contained in the proposal upon which this contract is based.

5. RIGHTS IN TECHNICAL DATA - LONG FORM

A. Definitions.

(1) "Technical Data" means recorded information regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental, developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate materiel. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical data as used herein does not include financial reports, cost analyses, and other information incidental to Agreement administration.

5. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

(2) "Proprietary Data" means technical data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:

(i) Are not generally known or available from other sources without obligation concerning their confidentiality;

(ii) Have not been made available by the owner to others without obligation concerning its confidentiality; and

(iii) Are not already available to the Government without obligation concerning their confidentiality.

(3) "Contract Data" means technical data first produced in the performance of the Agreement, technical data which are specified to be delivered in the Agreement, technical data that may be called for under the "Additional Technical Data Requirements" article of the Agreement, if any, or technical data actually delivered in connection with the Agreement.

(4) "Unlimited Rights" means rights to use, duplicate, or disclose technical data, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so.

B. Allocation of Rights.

(1) The Government shall have:

(i) Unlimited rights in contract data except as otherwise provided below with respect to proprietary data.

(ii) The right to remove, cancel, correct or ignore any marking not authorized by the terms of this Agreement on any technical data furnished hereunder, if in response to a written inquiry by DOE concerning the propriety of the markings, the Participant fails to respond thereto within sixty (60) days or fails to substantiate the propriety of the markings. In either case DOE will notify the Participant of the action taken.

(iii) No rights under this Agreement in any technical data which are not Agreement data.

(2) The Participant shall have:

(i) The right to withhold proprietary data in accordance with the provisions of this clause.

5. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

(ii) The right to use for its private purposes, subject to patent, security or other provisions of this Agreement, contract data it first produces in the performance of this Agreement provided the data requirements of this Agreement have been met as of the date of the private use of such data. The Participant agrees that to the extent it receives or is given access to proprietary data or other technical, business or financial data in the form of recorded information from DOE or a DOE contractor or subcontractor, the Participant shall treat such data in accordance with any restrictive legend contained thereon, unless use is specifically authorized by prior written approval of the Contracting Officer.

(3) Nothing contained in this "Rights in Technical Data" clause shall imply a license to the Government under any patent or be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

C. Copyrighted Material.

(1) The Participant shall not, without prior written authorization of the Contracting Officer, establish a claim to statutory copyright in any contract data first produced in the performance of this Agreement. To the extent such authorization is granted, the Government reserves for itself and others acting on its behalf a royalty-free, nonexclusive, irrevocable, worldwide license for Governmental purposes to publish, distribute, translate, duplicate, exhibit and perform any such data copyrighted by the Participant.

(2) The Participant agrees not to include in the technical data delivered under the Agreement any material copyrighted by the Participant and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in subparagraph C.(1) above. If such royalty-free license is unavailable and the Participant nevertheless determines that such copyrighted material must be included in the technical data to be delivered, rather than merely incorporated therein by reference, the Participant shall request the written authorization of the Contracting Officer to include such copyrighted material in the technical data without a license.

D. Subcontracting. It is the responsibility of the Participant to obtain from its subcontractors technical data and rights therein, on behalf of the Government, necessary to fulfill the Participant's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Participant shall:

5. RIGHTS IN TECHNICAL DATA - LONG FORM (Cont'd)

(1) Promptly submit written notice to the Contracting Officer setting forth reasons for the subcontractor's refusal and other pertinent information which may expedite disposition of the matter; and

(2) Not proceed with the subcontract without the written authorization of the Contracting Officer.

E. Withholding of Proprietary Data. Notwithstanding the inclusion of the "Additional Technical Data Requirements" clause in this Agreement or any provision of this Agreement specifying the delivery of technical data, the Participant may withhold proprietary data from delivery, provided that the Participant furnishes in lieu of any such proprietary data so withheld, technical data disclosing the source, size, configuration, matting and attachment characteristics, functional characteristics and performance requirements ("Form, Fit and Function" data, e.g., specification control drawings, catalog sheets, envelope drawings, etc.), or a general description of such proprietary data where "Form, Fit and Function" data are not applicable. The Government shall acquire no rights to any proprietary data so withheld except that such data shall be subject to the "Inspection Rights" provisions of paragraph F., and, if included, the "Limited Rights in Proprietary Data" provisions of paragraph G. and the "Participant Licensing" provisions of paragraph H.

F. Inspection Rights. Except as may be otherwise specified in this Agreement for specific items of proprietary data which are not subject to this paragraph, the Contracting Officer's representatives, at all reasonable times up to three (3) years after final payment under this Agreement, may inspect at the Participant's facility any proprietary data withheld under paragraph E. for the purposes of verifying that such data properly fell within the withholding provision of paragraph E., or for evaluating work performance.

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982)

A. Definitions

(1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code (USC).

(2) "Subject Invention" means any invention of the Participant conceived or first actually reduced to practice in the performance of work under this agreement.

(3) "Practical Application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

conditions as to establish that the invention is utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(4) "Made" when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) "Small Business Firm" means a small business concern as defined at Section 2 of Public Law 85-536 (15 USC 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standard for small business concerns involved in Government procurement, contained in 13 CFR 121.3-8, and in subcontracting, contained in 13 CFR 121.3-12, will be used.

(6) "Nonprofit Organization" means universities and other institutions of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 USC 501a) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(7) "Patent Counsel" means the Department of Energy (DOE) patent counsel assisting the DOE contracting activity.

B. Allocation of Principal Rights

The Participant may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Participant retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world.

C. Invention Disclosure, Election of Title and Filing of Patent Applications by Participant

(1) The Participant will disclose each subject invention to the Patent Counsel (with notification by the Patent Counsel to the Contracting Officer) within two months after the inventor discloses it in writing to Participant personnel responsible for the administration of patent matters. The disclosure to the Patent Counsel shall be in the form of a written report and shall identify the agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to Patent Counsel, the Participant will promptly notify Patent Counsel of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Participant.

(2) The Participant will elect in writing whether or not to retain title to any such invention by notifying Patent Counsel within twelve months of disclosure to the Participant: provided that in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title terminates sixty days prior to the end of the statutory period.

(3) The Participant will file its initial patent application on an elected invention within two years after election or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Participant will file patent applications in additional countries within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to Patent Counsel, election, and filing may, at the discretion of the Patent Counsel, be granted.

D. Conditions When the Government May Obtain Title

(1) The Participant will convey to DOE, upon written request, title to any subject invention:

(i) If the Participant fails to disclose or elect the subject invention within the times specified in c. above, or elects not to retain title.

(ii) In those countries in which the Participant fails to file patent application within the times specified in c. above: provided, however, that if the Participant has filed a patent application in a country after the times specified in c. above, but prior to its receipt of the written request of Patent Counsel, the Participant shall continue to retain title in that country; or



6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

(iii) In any country in which the Participant decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

E. Minimum Rights to Participant

(1) The Participant will retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title except if the Participant fails to disclose the subject invention within the times specified in c. above. The Participant's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Participant is a part and includes the right to grant sublicenses of the same scope to the extent the Participant was legally obligated to do so at the time the agreement was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Participant's business to which the invention pertains.

(2) The Participant's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with 10 CFR 781. This license will not be revoked in that field of use or the geographical areas in which the Participant has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Participant, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

E. Minimum Rights to Participant (Cont'd)

(3) Before revocation or modification of the license, DOE will furnish the Participant a written notice of its intention to revoke or modify the license, and the Participant will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Participant) after the notice to show cause why the license should not be revoked or modified. The Participant has the right to appeal, in accordance with 10 CFR 781, any decision concerning the revocation or modification of its license.

F. Participant Action to Protect Government's Interest

(1) The Participant agrees to execute or to have executed and promptly deliver to Patent Counsel all instruments necessary to:

(i) Establish or confirm the rights the Government has throughout the world in those subject inventions for which the Participant elects to retain title, and

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

(ii) Convey title to DOE when requested under d. above, and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The Participant agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Participant each subject invention made under this agreement in order that the Participant can comply with the disclosure provisions of c. above, and to execute all papers necessary to file patent applications on subject inventions. The disclosure format should require, as a minimum, the information requested by subparagraph c.(1) above. The Participant shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to United States or foreign statutory bars.

(3) The Participant will notify Patent Counsel of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The Participant agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the agreement) awarded by the Department of Energy. The Government has certain rights in this invention."

F. Participant Action to Protect Government's Interest (Cont'd)

(5) The Participant agrees to:

(i) Provide a report prior to the close-out of the agreement listing all subject inventions;

(ii) Provide notification of all subcontracts for experimental, developmental, demonstration, or research work, the identity of the patent rights clause therein, and copy of each subcontract upon request;

(iii) Provide promptly a copy of the patent application, filing date, serial number, patent number and issue date for any subject invention in any country in which the Participant has applied for patents.

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

G. Subcontracts

(1) The Participant will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed in the United States by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the Participant in this clause, and the Participant will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The Participant will include in all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work the patent rights clause required by 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties.

(3) In the case of a subcontract, at any tier DOE, the subcontractor, and the Participant agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to those matters covered by this clause.

H. Reporting on Utilization of Subject Inventions

The Participant agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Participant or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Participant, and such other data and information as DOE may reasonably specify. The Participant also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in accordance with paragraph j. of this clause. To the extent data or information supplied under this section is considered by the Participant, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by 35 USC 202(c)(5), it will not disclose such information to persons outside the Government.

I. Preference for United States Industry

Notwithstanding any other provision of this clause, the Participant agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Participant or its

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

J. March-in Rights

The Participant agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in OMB Circular A-124 to require the Participant, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Participant, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

(1) Such action is necessary because the Participant or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Participant, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by federal regulations and such requirements are not reasonably satisfied by the Participant, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph 1. of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

K. Special Provisions for Agreements with Nonprofit Organizations

If the Participant is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions and which is not, itself, engaged in or does not hold a substantial interest in other organizations engaged in the manufacture or sale of products or the use of processes that might utilize the invention or be in competition with embodiments of the invention (provided that such assignee will be subject to the same provisions as the Participant);

6. PATENT RIGHTS - (SMALL BUSINESS FIRMS AND NONPROFIT ORGANIZATIONS)  
(MARCH 1982) (Cont'd)

(2) The Participant may not grant exclusive licenses under United States patents or patent applications in subject inventions to persons other than small business firms for a period in excess of the earlier of:

(i) Five years from first commercial sale or use of the invention;  
or

(ii) Eight years from the date of the exclusive license excepting that time before regulatory agencies necessary to obtain premarket clearance, unless on a case-by-case basis, DOE approves a longer exclusive license. If exclusive field of use licenses are granted, commercial sale or use in one field of use will not be deemed commercial sale or use as to other fields of use, and a first commercial sale or use with respect to a product of the invention will not be deemed to end the exclusive period to different subsequent products covered by the invention.

(3) The Participant will share any royalties collected on a subject invention with the inventor; and

(4) The balance of any royalties or income earned by the Participant with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration subject inventions, will be utilized for the support of scientific research or education.

L. Communications

The DOE central point of contact for communications or matters relating to this clause is the Patent Counsel.

7. DISPUTES

(a) Final determination. Whenever practicable, DOE shall attempt to resolve informally any dispute over the award or administration of financial assistance. At the initiative of DOE or upon the written request of an applicant for a continuation award or of a recipient, DOE shall mail (by certified mail) a brief written determination signed by a Contracting Officer, setting forth DOE's final disposition of any dispute which is not resolved informally. Such determination shall contain the following information:

(1) A summary of the dispute, including a statement of the issues and of the positions taken by the Department and the party or parties to the dispute; and

(2) The factual, legal and policy reasons for DOE's disposition of the dispute.

7. DISPUTES (Cont'd)

(b) Right of appeal. Except as provided in paragraph (d)(1) of this section, the final determination under paragraph (a) of this section may be appealed to the Financial Assistance Appeals Board (the Board) in accordance with the procedures set forth in 10 CFR Part 1024. If the final determination under paragraph (a) of this section involves a dispute over which the Board has jurisdiction as provided in paragraph (d)(2) of this section, the Contracting Officer's determination shall state that, with respect to such dispute, the determination shall be the final decision of the Department unless, within 60 days, a written notice of appeal is filed. If the final determination under paragraph (a) of this section involves a dispute over which the Board has no jurisdiction as provided in paragraph (d)(1) of this section, the Contracting Officer's determination shall state that, effective immediately or on a later date specified therein, the determination shall, with respect to such dispute, be the final decision of the Department.

(c) Effect of appeal. The filing of an appeal with the Board shall not stay any determination or action taken by DOE which is the subject of the appeal. Consistent with its obligation to protect the interests of the Federal Government, DOE may take such authorized actions as may be necessary to preserve the status quo pending decision by the Board, or to preserve its ability to provide relief in the event the Board decides in favor of the appellant.

(d) Review on appeal.

(1) The Board shall have no jurisdiction to review:

(i) Any preaward dispute (except as provided in paragraph (d)(2)(ii) of this section), including use of any special restrictive condition pursuant to § 600.105;

(ii) DOE denial of a request for a deviation under § 600.4 of this part;

(iii) DOE denial of a request for a budget revision or other change in the approved project under §§ 600.103, 600.114 or 600.271 of this part or under another term or condition of the award;

(iv) Any DOE action authorized under §§ 600.121(b)(1), (2), (3) or (5) or 600.271 of this part with respect to recipient noncompliance, or such actions authorized by program rule;

(v) Any DOE decision about an action requiring prior DOE approval, under §§ 600.112(g), 600.119, or 600.271 of this part or under another term or condition of the award;

(vi) A DOE decision not to make a continuation award, which decision is based on the insufficiency of available appropriations;

7. DISPUTES (Cont'd)

(vii) Any matter which is under the jurisdiction of the Patent Compensation Board (10 CFR 780.3);

(vii) Any matter which may be heard by the Invention Licensing Appeals Board (10 CFR 781.65 and 781.66); or

(ix) Any other dispute not described in paragraph (d)(2) of this section.

(2) In addition to any right of appeal established by program rule, or by the terms and conditions (not inconsistent with paragraph (d)(1) of this section) of an award, the Board shall have jurisdiction to review:

(i) A DOE determination that the recipient has failed to comply with the applicable requirements of this part, the program statute or rules, or other terms and conditions of the award;

(ii) A DOE decision not to make a continuation award based on any of the determinations describe in paragraph (d)(2)(i) of this section;

(iii) Termination of an award for cause, in whole or in part, by DOE;

(iv) A DOE determination that an award is void or invalid;

(v) The application by DOE of an indirect cost rate; and

(vi) DOE disallowance of costs.

(3) In reviewing disputes authorized under paragraph (d)(2) of this section, the Board shall be bound by the applicable law, statutes, and rules, including the requirements of this part, and by the terms and conditions of the award.

(4) The decision of the Board shall be the final decision of the Department.

8. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS

The clauses set forth in the following paragraphs shall be included in full by the contracting agency in every contract entered into by the United States or the District of Columbia, in excess of \$2,500, or in an indefinite amount, the principal purpose of which is to furnish services through the use of service employees:

(a) Service Contract Act of 1965, as amended: This agreement is subject to the Service Contract Act of 1965, as amended (41U.S.C. 351 et seq.) and is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor issued thereunder (29 CFR Part 4).

8. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(b)(1) Each service employee employed in the performance of this agreement by the Participant or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor or authorized representative, as specified in any wage determination attached to this agreement.

(2)(i) If there is such a wage determination attached to this agreement, the Contracting Officer shall require that any class of service employee which is not listed therein and which is to be employed under the agreement (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the Participant so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits as are determined pursuant to the procedures in this section. (The information collection requirements contained in the following paragraphs of this section have been approved by the Office of Management and Budget under OMB control number 1215-0150.)

(ii) Such conforming procedure shall be initiated by the Participant prior to the performance of agreement work by such unlisted class of employee. A written report of the proposed conforming action, including information regarding the agreement or disagreement of the authorized representative of the employees involved or, where there is no authorized representative, the employees themselves, shall be submitted by the Participant to the contracting officer no later than 30 days after such unlisted class of employees performs any agreement work. The Contracting Officer shall review the proposed action and promptly submit a report of the action, together with the agency's recommendations and all pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the Contracting Officer within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Participant of the action taken. Each affected employee shall be furnished by the Participant with a written copy of such determination or it shall be posted as a part of the wage determination.



8. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(iv)(A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination depending on the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under Federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of an agreement modification, an exercise of an option or extension of an existing agreement, or in any other case where a Participant succeeds an agreement under which the classification in question was previously conformed pursuant to this section, a new conformed wage rate and fringe benefits may be assigned to such conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the agreement which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of agreement work by the unlisted class of employees, the Participant shall advise the Contracting Officer of the action taken but the other procedures in paragraph (b)(2)(ii) of this section need not be followed.

(C) No employee engaged in performing work on this agreement shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined pursuant to paragraphs (b)(2)(i) and (ii) of this section shall be paid to all employees performing in the classification from the first day on which agreement work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced agreement work shall be a violation of the Act and this agreement.

(vi) Upon discovery of failure to comply with paragraphs (b)(2)(i) through (v) of this section, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be retroactive to the date such class of employees commenced agreement work.

8. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(3) If, as authorized pursuant to section 4(d) of the Service Contract Act of 1965 as amended, the term of this agreement is more than 1 year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees shall be subject to adjustment after 1 year and not less often than once every 2 years, pursuant to wage determinations to be issued by the Wage and Hour Division, Employment Standards Administration of the Department of Labor as provided in such Act.

(c) The participant or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined conformably thereto by furnishing any equivalent combinations of bona fide fringe benefits, or by making equivalent or differential payments in cash in accordance with the applicable rules set forth in Subpart D of 29 CFR Part 4, and not otherwise.

(d)(1) In the absence of a minimum wage attachment for this agreement, neither the Participant nor any subcontractor under this agreement shall pay any person performing work under the agreement (regardless of whether they are service employees) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this provision shall relieve the Participant or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.

(2) If this agreement succeeds a contract, subject to the Service Contract Act of 1965 as amended, under which substantially the same services were furnished in the same locality and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the minimum wage attachment for this agreement setting forth such collectively bargained wage rates and fringe benefits, neither the Participant nor any subcontractor under this agreement shall pay any service employee performing any of the agreement work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreements, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No Participant or subcontractor under this agreement may be relieved of the foregoing obligation unless the limitations of 4.1b(b) of 29 CFR Part 4 apply or unless the Secretary of Labor or his authorized representative finds, after a hearing as provided in 4.10 of 29 CFR Part 4 that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 4.11 of 29 CFR Part 4, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR Part 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor contractor's

8. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

collective bargaining agreement are substantially at variance with those which prevail for services of a character similar in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the agreement or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Board of Service Contract Appeals, as the case may be, irrespective of whether such issuance occurs prior to or after the award of an agreement or subcontract, 53 Comp. Gen. 401 (1973). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.

(e) The Participant and any subcontractor under this agreement shall notify each service employee commencing work on this agreement of the minimum monetary wage and any fringe benefits required to be paid pursuant to this agreement, or shall post the wage determination attached to this agreement. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this agreement. (Approved by the Office of Management and Budget under OMB control number 1215-0150).

(f) The Participant or subcontractor shall not permit any part of the services called for by this agreement to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Participant or subcontractor which are unsanitary or hazardous or dangerous to the health or safety of service employees engaged to furnish these services, and the Participant or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.

(g)(1) The Participant and each subcontractor performing work subject to the Act shall make and maintain for 3 years from the completion of the work records containing the information specified in paragraphs (g)(1)(i) through (vi) of this section for each employee subject to the Act and shall make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration of the U.S. Department of Labor, (Sections 4.6(g)(1)(i) through (iv) approved by the Office of Management and Budget under OMB control number 1215-0017 and sections 4.6(g)(1)(v) and (vi) approved under OMB control numbers 1215-0150.):

(i) Name and address and social security number of each employee.

8. LABOR STANDARDS FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(ii) The correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of fringe benefit payments in lieu thereof, and total daily and weekly compensation of each employee.

(iii) The number of daily and weekly hours so worked by each employee.

(iv) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.

(v) A list of monetary wages and fringe benefits for those classes of service employees not included in the wage determination attached to this agreement but for which such wage rates or fringe benefits have been determined by the interested parties or by the Administrator or authorized representative pursuant to the labor standards clause in paragraph (b) of this section. A copy of the report required by the clause in paragraph (b)(2)(ii) of this section shall be deemed to be such a list.

(vi) Any list of the predecessor contractor's employees which had been furnished to the Participant pursuant to 4.6(1)(2).

(2) The Participant shall also make available copy inspection or transcription by authorized representatives of the Wage and Hour Division.

(3) Failure to make and maintain or to make available such records for inspection and transcription shall be a violation of the regulations and this agreement, and in the case of failure to produce such records, the Contracting Officer, upon direction of the Department of Labor and notification of the contractor, shall take action to cause suspension of any further payment or advance of funds until such violation ceases.

(4) The Participant shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(h) The Participant shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or Regulations, 29 CFR Part 4), rebate, or kickback on any account. Such payments shall be made no later than one pay period following the end of the regular pay period in which such wages were earned or accrued. A pay period under this act may not be of any duration longer than semi-monthly.

(i) The Contracting Officer shall withhold or cause to be withheld from the Government prime Participant under this or any other Government agreement or contract with the prime Participant such sums as an appropriate official of the Department of Labor requests or such sums as the Contracting Officer decides may be necessary to pay underpaid employees employed by the

8. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

Participant or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the agency may, after authorization or by direction of the Department of Labor and written notification to the Participant, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of these clauses relating to the Service Contract Act of 1965, may be grounds for termination of the right to proceed with the agreement work. In such event, the Government may enter into other contracts or arrangements for completion of the work, charging the Participant in default with any additional cost.

(j) The Participant agrees to insert these clauses in this section relating to the Service Contract Act of 1965 in all subcontracts subject to the Act. The term "contractor" as used in these clauses in any subcontract, shall be deemed to refer to the subcontractor, except in the term "Government prime Participant."

(k)(1) As used in these clauses, the term "service employee" means any person engaged in the performance of this agreement other than any person employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in Part 541 of Title 29, Code of Federal Regulations, as of July 30, 1976, and any subsequent revision of those regulations. The term "service employee" includes all such personal regardless of any contractor relationship that may be alleged to exist between a Participant or subcontractor and such persons.

(2) The following statement is included in agreements pursuant to section 2(a)(5) of the Act and is for informational purposes only.

The following classes of service employees expected to be employed under the agreement with the Government would be subject, if employed by the contracting agency, to the provisions of 5 U.S.C. 5341 or 5 U.S.C. 5 72 and would, if so employed, be paid not less than the following rates of wages and fringe benefits:

(1)(1) If wages to be paid or fringe benefits to be furnished any service employees employed by the Government prime Participant or any subcontractor under the agreement are provided for in a collective bargaining agreement which is or will be effective during any period in which the agreement is being performed, the Government prime Participant shall report such fact to the Contracting Officer, together with full information as to the application and accrual of such wages and fringe benefits, including any prospective increases, to service employees engaged in work on the agreement and a copy of the collective bargaining agreement. Such report shall be made upon

8. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

commencing performance of the agreement, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of agreement performance, such agreements shall be reported promptly after negotiation thereof. (Approved by the Office of Management and Budget under OMB control number 1215-0150.)

(2) Not less than 10 days prior to completion of any agreement being performed at a Federal facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a contractor (predecessor) or successor ( 4.173 of Regulations, 29 CFR Part 4), the incumbent prime Participant shall furnish to the Contracting Officer a certified list of the names of all service employees on the Participant's or subcontractor's payroll during the last month of agreement performance. Such list shall also contain anniversary dates of employment on the agreement either with the current or predecessor contractors of each such service employee. The Contracting Officer shall turn over such list to the successor contractor at the commencement of the succeeding contract. (Approved by the Office of Management and Budget under OMB control number 1215-0150.)

(m) Rulings and interpretations of the Service Contract Act of 1965, as amended are contained in Regulations, 29 CFR Part 4.

(n)(1) By entering into this agreement, the Participant (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in the Participant's firm is a person or firm ineligible to be awarded Government agreements by virtue of the sanctions imposed pursuant to section 5 of the Act.

(2) No part of this agreement shall be subcontracted to any person or firm ineligible for award of a Government contract pursuant to section 5 of the Act.

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(o) Notwithstanding any of the clauses in paragraphs (b) through (m) of this section relating to the Service Contract Act of 1965, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business:

8. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

(1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical, or mental deficiency or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Service Contract Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of that Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).

(2) The Administrator will issue certificates under the Service Contract Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).

(3) The Administrator will also withdraw, annul, or cancel, such certificates in accordance with the regulations in Parts 525 and 528 of Title 29 of the Code of Federal Regulations.

(p) Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency which is recognized by the U.S. Department of Labor, or if no such recognized agency exists in a State, under a program registered with the Bureau of Apprenticeship and Training, Employment and Training Administration, U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the agreement work in any craft classification shall not be greater than the ratio permitted to the Participant as to its entire work force under the registered program.

(q) An employee engaged in an occupation in which he or she customarily and regularly receives more than \$30 a month in tips may have the amount of tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act in accordance with section 3(m) of the Fair Labor Standards Act and Regulations, 29 CFR Part 531: Provided,

8. LABOR STANDARD FOR FEDERAL SERVICE AGREEMENTS (Cont'd)

however, That the amount of such credit may not exceed \$1.24 per hour beginning January 1, 1980, and \$1.34 per hour after December 31, 1980. To utilize this proviso:

(1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized:

(2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received):

(3) The employer must be able to show by records that the employee received at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; (approved by the Office of Management and Budget under OMB control number 1215-0017);

(4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.

(r) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this agreement shall not be subject to the general disputes clause of this agreement. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 4, 7, and 8. Disputes within the meaning of this clause include disputes between the Participant (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or employees or their representatives.



SECTION IDOE BID AND PROPOSAL  
REPRESENTATIONS AND CERTIFICATIONS

1.  
2.  
3.  
7. Information Various statutes and regulations require Federal  
8. agencies to obtain certain representations and certifications in  
9. connection with the award of contracts. The Department of Energy  
10. Acquisition Regulation, permits the use of simplified  
11. representations and certifications if an acceptable comprehensive  
12. submission has been placed on record with the contracting  
13. activity to which a subsequent bid or proposal is being  
13. submitted. The comprehensive representations and certifications  
14. may remain on record for a maximum period of 3 years. During  
15. this period the bidder/offeror may elect to use the simplified  
16. representations and certifications procedure. This pre printed  
17. representation and certification data package has been developed  
17.1 to simplify the submission of these required representation and  
18. certifications.  
19.

20. In addition to the representations and certifications required in  
21. a comprehensive submission, there are certain representations and  
22. certifications which may be required by special circumstances  
23. depending upon the nature of the individual solicitation. These  
24. representations and certifications, when required, will be  
25. identified as additional requirements in Section K of the  
25. solicitation document.  
26.

Instructions

27.  
28.  
29. The Contents of this Representations and Certifications data  
29. package consist of:  
30.

## Part I Representations and Certifications

31.  
32.  
33. a. Information  
34.  
35. b. Selection of Submission Type  
36.  
37. c. Certification  
38.

## Part II Comprehensive Representations and Certifications

## Part III Additional Representations and Certifications

39.  
40.  
41. All bidders/offerors shall complete Part I  
42.  
43.

44.  
45. If a comprehensive representations and certifications has been  
46. previously submitted to, and accepted by, the contracting  
46. activity, only Part I and any additional items in Part III which  
47. may be required by the solicitation need be completed.  
49.

50. If a comprehensive representations and certifications has not  
50. been previously submitted to and accepted by the contracting  
51. activity, Parts I and II and any additional items in Part III  
52. which may be required by the solicitation shall be completed.

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7. **DOE BID AND PROPOSAL**  
8. **REPRESENTATIONS AND CERTIFICATIONS**

9. Information Various statutes and regulations require Federal  
10. agencies to obtain certain representations and certifications in  
11. connection with the award of contracts. The Department of Energy  
12. Acquisition Regulation, permits the use of simplified  
13. representations and certifications if an acceptable comprehensive  
14. submission has been placed on record with the contracting  
15. activity to which a subsequent bid or proposal is being  
16. submitted. The comprehensive representations and certifications  
17. may remain on record for a maximum period of 3 years. During  
18. this period the bidder/offeror may elect to use the simplified  
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27. representations and certifications, when required, will be  
28. identified as additional requirements in Section K of the  
29. solicitation document.

30. Instructions

31. The Contents of this Representations and Certifications data  
32. package consist of:

33. Part I Representations and Certifications

34. a. Information  
35. b. Selection of Submission Type  
36. c. Certification

37. Part II Comprehensive Representations and Certifications

38. Part III Additional Representations and Certifications

39. All bidders/offerors shall complete Part I

40. If a comprehensive representations and certifications has been  
41. previously submitted to, and accepted by, the contracting  
42. activity, only Part I and any additional items in Part III which  
43. may be required by the solicitation need be completed.

44. If a comprehensive representations and certifications has not  
45. been previously submitted to and accepted by the contracting  
46. activity, Parts I and II and any additional items in Part III  
47. which may be required by the solicitation shall be completed.  
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PART I - REPRESENTATIONS AND CERTIFICATIONS

A. General Data

1. The bidder/offeror certifies:

(a) It is a ( ) Corporation, incorporated in the state of \_\_\_\_\_;

- ( ) an individual;
- ( ) a partnership;
- ( ) a nonprofit or educational institution;
- ( ) a state or local government; and

(b) It is \_\_\_ is not \_\_\_

- \_\_\_ a small business
- \_\_\_ a small and disadvantaged business
- \_\_\_ a women-owned small business
- \_\_\_ a labor surplus area concern

(c) Its Data Universal Numbering System (DUNS) establishment number is: \_\_\_\_\_

(2) The offeror/bidder represents that the following person(s) is/are authorized to communicate on its behalf with the Government in connection with this solicitation: list names and telephone numbers of appropriate personnel.  
\_\_\_\_\_

B. Selection of Submission Technique

1. / / Simplified Submission

a. This to certify that the comprehensive representations and certifications submitted to the DOE \_\_\_\_\_ (insert appropriate DOE contracting activity) on \_\_\_\_\_ (insert date) remains current and accurate with respect to the bid or proposal, except as indicated herein, submitted in response to solicitation \_\_\_\_\_ dated \_\_\_\_\_.

b. The following specific representations and certifications differ from the disclosures filed in (B)(1)(a) above and revised representations and certifications therefor are resubmitted in Part II.

(attach listing)

104. 2. / / Comprehensive Submission

105.

106.

107.

107.1

107.2

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The offer/bidder represents that a comprehensive representations and certifications has not previously been placed on record with the contracting activity and that part II of this data package is completed and being submitted with respect to this bid or proposal in response to solicitation no. \_\_\_\_\_ dated \_\_\_\_\_.

C. Certification

By signing below, the bidder/offeror certifies that the representations and certifications are accurate, current and complete. The bidder/offeror further certifies that it will notify the contracting activity of any changes affecting a comprehensive representations and certifications if one has been placed on record.

Solicitation Number \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed Name \_\_\_\_\_

Name and \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

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**PART II - COMPREHENSIVE REPRESENTATIONS AND CERTIFICATIONS**

Indicate whether you wish this representations and certifications to be maintained as a record submission by the contracting activity:

- ( ) Yes, I wish to have this representations and certifications maintained as a record submission by the contracting activity. If you elect to have this comprehensive submission placed on record, you must agree to update it within 3 years and notify the contracting activity of any change during the period it is on record. A change affecting only a single bid or proposal may be indicated at Part I.B.1.b.
  
- ( ) No, I do not wish this representations and certifications maintained as a record submission by the contracting activity, other than for this specific bid/proposal.

**FAR 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1984)**

(a) The offeror certifies that;

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a formally advertised solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

Each signature on the offer is considered to be a certification by the signatory that the signatory;

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above  
.....  
.....

195. Insert full name of person(s) in the offeror's organization  
196. responsible for determining the prices offered in this bid or  
197. proposal, and the title of his or her position in the offeror's  
198. organization  
199.

200. (ii) As an authorized agent, does certify that the  
201. principals named in subdivision (b)(2)(i) above have not  
202. participated, and will not participate, in any action contrary to  
203. subparagraphs (a)(1) through (a)(3) above; and  
204.

205. (iii) As an agent, has not personally participated, and will  
206. not participate, in any action contrary to subparagraphs (a)(1)  
207. through (a)(3) above.  
208.

209. If the offeror deletes or modifies subparagraph (a)(2)  
210. above, the offeror must furnish with its offer a signed statement  
211. setting forth in detail the circumstances of the disclosure.  
213.

214. FAR 52.203-4 CONTINGENT FEE REPRESENTATION AND AGREEMENT (APR  
214. 1984)  
215.

216. (a) Representation.  
217.

218. The offeror represents that, except for full-time bona fide  
219. employees working solely for the offeror, the offeror;  
220.

221. Note: The offeror must check the appropriate boxes. For  
222. interpretation of the representation, including the term "bona  
223. fide employee," see Subpart 3.4 of the Federal Acquisition  
224. Regulation.  
225.

226. (1) ( ) has, ( ) has not employed or retained any person  
227. or company to solicit or obtain this contract; and  
228.

229. (2) ( ) has, ( ) has not paid or agreed to pay to any  
229. person or company employed or retained to solicit or obtain this  
231. contract any commission, percentage, brokerage, or other fee  
232. contingent upon or resulting from the award of this contract.  
233.

234. (b) Agreement.  
235.

236. The offeror agrees to provide information relating to the  
236. above Representation as requested by the Contracting Officer and,  
238. when subparagraph (a)(1) or (a)(2) is answered affirmatively, to  
239. promptly submit to the Contracting Officer;  
240.

241. (1) A completed Standard Form 119, Statement of Contingent  
242. or Other Fees, (SF 119); or  
243.

244. (2) A signed statement indicating that the SF 119 was  
245. previously submitted to the same contracting office, including  
246. the date and applicable solicitation or contract number, and  
247. representing that the prior SF 119 applies to this offer or  
247. quotation.  
248.

249. FAR 52.214-2/52.215-6 TYPE OF BUSINESS ORGANIZATION-FORMAL  
250. ADVERTISING/NEGOTIATION (APR 1984)  
251.

252. The bidder, by checking the applicable box, represents that  
253. it operates as ( ) a corporation incorporated under the laws of  
254. the State of ....., ( ) an individual, ( ) a partnership,  
255. ( ) a nonprofit organization, or ( ) a joint venture.

257. FAR 52.214-8 PARENT COMPANY AND IDENTIFYING DATA (APR 1984)

259. (a) A "parent" company, for the purpose of this provisions,  
260. is one that owns or controls the activities and basic business  
261. policies of the bidder. To own the bidding company means that  
262. the parent company must own more than 50 percent of the voting  
263. rights in that company. A company may control a bidder as a  
264. parent even though not meeting the requirement for such ownership  
265. if the parent company is able to formulate, determine, or veto  
266. basic policy decisions of the offeror through the use of dominant  
267. minority voting rights, use of proxy voting, or otherwise.

269. (b) The bidder ( ) is, ( ) is not check applicable box  
270. owned or controlled by a parent company.

272. (c) If the bidder checked "is" in paragraph (b) above, it  
273. shall provide the following information:

274. Name and Main Office Address of Parent Company (Include Zip Code)

275. Parent Company's Employer's Identification Number

276. ....

277. (d) If the bidder checked "is not" in paragraph (b) above,  
278. it shall insert its own Employer's Identification Number on the  
279. following line .....

281. FAR 52.214-14/52.215-20 PLACE OF PERFORMANCE-FORMAL  
282. ADVERTISING/NEGOTIATION (APR 1984)

283. (a) The bidder, in the performance of any contract  
284. resulting from this solicitation, ( ) offeror intends, ( )  
285. offeror does not intend check applicable box to use one or more  
286. plants or facilities located at a different address from the  
287. address of the bidder as indicated in this bid.

288. (b) If the bidder checks "intends" in paragraph (a) above,  
289. it shall insert in the spaces provided below the required  
290. information:

291. Place of Performance (Street Address, City, County, State, Zip  
292. code) Name and Address of Owner and Operator of the Plant or  
293. Facility if Other than Bidder

294. FAR 52.219-1 SMALL BUSINESS CONCERN REPRESENTATION (APR 1984)

295. The offeror represents and certifies as part of its offer  
296. that it ( ) is, ( ) is not a small business concern and that ( )  
297. all, ( ) not all supplies to be furnished will be manufactured  
298. or produced by a small business concern in the United States, its  
299. possessions, or Puerto Rico.

309.

310. "Small business concern," as used in this provision, means a  
311. concern, including its affiliates, that is independently owned  
312. and operated, not dominant in the field of operation in which it  
313. is bidding on Government contracts, and qualified as a small  
314. business under the size standards in this solicitation.

316.  
317. FAR 52.219-2 SMALL DISADVANTAGED BUSINESS CONCERN REPRESENTATION  
317. (APR 1984).

318.  
319. (a) Representation.

320.  
321. The offeror represents that it ( ) is, ( ) is not a small  
322. disadvantaged business concern.

323.  
324. (b) definitions.

325.  
326. "Asian-Indian American," as used in this provision, means a  
327. United States citizen whose origins are in India, Pakistan, or  
328. Bangladesh.

329.  
330. "Asian-Pacific American," as used in this provision, means a  
331. United States citizen whose origins are in Japan, China, the  
332. Philippines, Vietnam, Korea, Samoa, Guam, the U.S. Trust  
332. Territory of the Pacific Islands, the Northern Mariana islands,  
333. Laos, Cambodia, or Taiwan.

335.  
336. "Native Americans," as used in this provision, means  
336. American Indians, Eskimos, Aleuts, and native hawaiians.

338.  
339. "Small business concern," as used in this provision, means a  
340. concern, including its affiliates, that is independently owned  
341. and operated, not dominant in the field of operation in which it  
342. is bidding on Government contracts, and qualified as a small  
343. business under the criteria and size standards in 13 CFR 121.

345.  
346. "Small disadvantaged business concern," as used in this  
346. provision, means a small business concern that (1) is at least 51  
347. percent owned by one or more individuals who are both socially  
348. and economically disadvantaged, or a publicly owned business  
350. having at least 51 percent of its stock owned by one or more  
351. socially and economically disadvantaged individuals and (2) has  
352. its management and daily business controlled by one or more such  
353. individuals.

354.  
355. (c) Qualified groups.

356.  
357. The offeror shall presume that socially and economically  
358. disadvantaged individuals include Black Americans, Hispanic  
359. Americans, Native Americans, Asian-Pacific Americans,  
360. Asian-Indian Americans, and other individuals found to be  
361. qualified by the SBA under 13 CFR 124.1.

362.  
363. FAR 52.219-3 WOMEN-OWNED SMALL BUSINESS REPRESENTATION (APR  
363. 1984)

364.  
365. (a) Representation.

366.  
367. The offeror represents that it ( ) is, ( ) is not a  
368. women-owned small business concern.



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(b) Definitions.

"Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominate in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria and size standards in 13 CFR 121.

"Women-owned," as used in this provision, means a small business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

FAR 52.222-19 WALSH-HEALEY PUBLIC CONTRACTS ACT REPRESENTATION (APR 1984)

The offeror represents as a part of the offer that the offeror is ( ) or is not ( ) a regular dealer in, or is ( ) or is not ( ) a manufacturer of, the supplies offered.

FAR 52.222-21 CERTIFICATION OF NONSEGREGATED FACILITIES (APR 1984)

(a) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(b) By the submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(c) The offeror further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will;

(1) Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;

(2) Retain the certifications in the files; and

(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

428. FAR 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (APR  
428. 1984)

429.  
430. The offeror represents that;

431.  
432. (a) It ( ) has, ( ) has not participated in a previous  
433. contract or subcontract subject either to the Equal Opportunity  
434. clause of this solicitation, the clause originally contained in  
435. Section 310 of Executive Order No. 10925, or the clause  
436. contained in Section 201 of Executive Order No. 11114;

438.  
439. (b) ( ) has, ( ) has not, filed all required compliance  
440. reports; and

441.  
442. (c) Representations indicating submission of required  
443. compliance reports, signed by proposed subcontractors, will be  
444. obtained before subcontract awards.

445.  
446. FAR 52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

447.  
448. The offeror represents that (a) is ( ) has developed and  
449. has on file, ( ) has not developed and does not have on file, at  
450. each establishment, affirmative action programs required by the  
451. rules and regulations of the Secretary of Labor (41 CFR 60-1 and  
452. 60-2), or (b) it ( ) has not previously had contracts subject to  
453. the written affirmative action programs requirement of the rules  
454. and regulations of the Secretary of Labor.

455.  
456. FAR 52.223-1 CLEAN AIR AND WATER CERTIFICATION (APR 1984)

457.  
458. The Offeror certifies that;

459.  
460. (a) Any facility to be used in the performance of this  
461. proposed contract is ( ), is not ( ) listed on the Environmental  
462. Protection Agency List of Violating Facilities;

463.  
464. (b) The Offeror will immediately notify the Contracting  
465. Officer, before award, of the receipt of any communication from  
466. the Administrator, or a designee, of the Environmental Protection  
467. Agency, indicating that any facility that the Offeror proposes to  
468. use for the performance of the contract is under consideration to  
469. be listed on the EPA List of Violating Facilities; and

470.  
471. (c) The Offeror will include a certification substantially  
472. the same as this certification, including this paragraph (c), in  
473. every nonexempt subcontract.

474.  
475.  
476. FAR 52.225-1 BUY AMERICAN CERTIFICATE (APR 1984)

477.  
478. The offeror certifies that each end product, except those  
479. listed below, is a domestic end product (as defined in the clause  
480. entitled "Buy American Act-Supplies"), and that components of  
481. unknown origin are considered to have been mined, produced, or  
482. manufactured outside the United States.

483.  
484. Excluded End Products-Country of Origin

485.  
486. (List as necessary) \_\_\_\_\_  
487.

488. Offerors may obtain from the contracting officer lists of  
489. articles, materials, and supplies excepted from the Buy American  
490. Act (listed at 25.108 of the Federal Acquisition Regulation).  
491.

492. **DUNS ESTABLISHMENT NUMBER**  
493.

494. The offeror/bidder represents that its Data Universal Numbering  
495. System (DUNS) establishment number is \_\_\_\_\_.  
496.

497. **Certification:**  
498.

499. By signing below, the bidder/offeror certifies that these  
500. comprehensive representations and certifications are accurate,  
501. current and complete.  
502.

503. \_\_\_\_\_  
504. \_\_\_\_\_  
505. **Date** \_\_\_\_\_ **Signature**  
506. \_\_\_\_\_  
507. \_\_\_\_\_ **Typed** \_\_\_\_\_ **Name**  
508. \_\_\_\_\_  
509. \_\_\_\_\_ **Title**  
510. \_\_\_\_\_  
511. \_\_\_\_\_ **Organization** \_\_\_\_\_  
512. \_\_\_\_\_  
513. \_\_\_\_\_  
516.

518. PART III - ADDITIONAL REPRESENTATIONS AND CERTIFICATIONS

519.  
520. In accordance with the instructions in Section K of the  
520. solicitation, complete the following individual representations  
521. and solicitations as may be required.

523.  
524. NOTE: The additional representations and certifications  
524. regarding Cost Accounting Standards, which may be  
525. indicated as required by individual solicitations, need  
526. not be submitted by small businesses or educational  
527. institutions.

528.  
529.  
530. 952.204-73 Foreign ownership, control, or influence over  
531. contractor (Representation).

532.  
533. As prescribed in 904.7005(a), insert the following provision  
534. in all solicitations for contracts subject to the provisions of  
534. 904.70.

535.  
536. Foreign Ownership, Control, or Influence Over Contractor

537.  
538. (a) For purposes of this provision, a foreign interest is  
539. defined as any of the following:

540.  
541. (1) A foreign government or foreign government agency;

542.  
543. (2) Any form of business enterprise organized under the laws  
544. of any country other than the United States or its possessions;

545.  
546. (3) Any form of business enterprise organized or  
546. incorporated under the laws of the U.S., or a State or other  
547. jurisdiction within the U.S., which is owned, controlled, or  
548. influenced by a foreign government, agency, firm, corporation, or  
549. person, or;

550.  
551. (4) Any person who is not a U.S. citizen.

552.  
553. (b) Foreign ownership, control, or influence (FOCI) means the  
554. situation where the degree of ownership, control, or influence  
555. over a contractor by a foreign interest is such that a reasonable  
556. basis exists for concluding that compromise of classified  
557. information or a significant quantity of special nuclear material  
558. as defined in 10 CFR Part 710 may result.

559.  
560. (c) If the offeror/bidder has not previously submitted  
561. responses to the following questions to DOE as part of the  
562. facility security clearance process, then it shall answer the  
563. following questions. Answer each question in either the "yes" or  
564. "no" column. If the answer is yes, furnish in detail on a  
565. separate sheet of paper all the information requested in  
566. parentheses. Copies of responses to the same questions submitted  
567. to other Government agencies be submitted as responses to these  
568. questions if the earlier responses are accurate, complete, and  
569. current.

570.  
571. Question Yes No  
572. ....  
573.

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634.
1. Does a foreign interest own or have beneficial ownership in 5% or more of your organization's voting securities?  
(Identify the percentage of any class of shares or other securities issued which are owned by foreign interests, listed by country. If you answer "Yes" and have received from an investor a copy of Schedule 13D and/or Schedule 13G filed by the investors with the Securities and Exchange Commission, you are to attach a copy of Schedule 13D and/or Schedule 13G.)
  2. Does your organization own 10% or more of any foreign interest?  
(Furnish the name, address by country, and the percentage owned. Include name and title of officials of your organization who occupy positions with the foreign entity, if any.)
  3. Do any foreign interests have management positions such as directors, officers, or executive personnel in your organization?  
(Furnish full information concerning the identity of the foreign interest and the position he/she holds in your organization.)
  4. Does any foreign interest control or influence, or is any foreign interest in a position to control or influence the election, appointment, or tenure of any of your directors, officers, or executive personnel?  
(Identify the foreign interest(s) and furnish full details concerning the control or influence.)
  5. Does your organization have any contracts, binding agreements, understandings, or arrangements with a foreign interest(s) that cumulatively represent 10% or more of your organization's gross income? (Furnish name of foreign interest, country, nature of agreement or involvement. Agreements include licensing, sales, patent exchange, trade secrets, agency, cartel, partnership, joint venture, proxy, etc. If you answer "Yes" and have received from the investor a copy of Schedule 13D and/or Schedule 13G filed by the investor with the Securities and Exchange Commission, you are to attach a copy of Schedule 13D and/or Schedule 13G.)
  6. Is your organization indebted to foreign interests?  
(Furnish the amount of indebtedness as related to the current assets of the organization and identify the creditor. Include specifics as to the type of indebtedness and what, if any, collateral, including voting stock, has been furnished or pledged. If any debentures are convertible, specifics about the indebtedness, collateral, if any, and what will be received after conversion are to be furnished.)
  7. Does your organization derive any income from Communist countries included in Country Groups P, Q, W, Y, and Z in Supplement No.1 in 15 CFR Part 370 or income in excess of 10% of gross income from non-Communist foreign interest? (Discuss in detail any income from derived Communist countries, including percentage from each such country as related to total income, and the type of services or

635. products involved. If income is from non-Communist  
636. countries, give overall percentage as related to total  
637. income and type of services or products in general terms.  
638. If income is from a number of foreign countries, identify  
639. countries. Include also percentage by country.)  
641. 8. Is 5% or more of any class of your organization's  
642. securities held in "nominee shares," in "street names", or  
643. in some other method which does not disclose beneficial  
644. owner of equitable title?  
645. (Identify each foreign institutional investor holding 5  
646. percent or more of the voting stock. Identification  
647. should include the name and address of the investor and  
648. percentage of stock held. State whether the investor  
649. has attempted to, or has, exerted any management control  
650. or influence over the appointment of directors,  
651. officers, or other key management personnel, and whether  
652. such investors have attempted to influence the policies  
653. of the corporation. If you have received from the  
654. investor a copy of the Schedule 13D and/or Schedule 13G  
655. filed by the investor with the Securities and Exchange  
656. Commission, you are to attach a copy of Schedule 13D  
657. and/or Schedule 13G.)  
658. 9. Does your organization have interlocking directors with  
659. foreign interests?  
660. (Include identifying data on all such directors. If  
661. they have a security clearance, so state. Also indicate  
662. the name and address of all other corporations with  
663. which they serve in any capacity.)  
664. 10. Are there any citizens of foreign countries employed by,  
665. or who may visit, your offices or facilities in a  
666. capacity which may permit them to have access to  
667. classified information or a significant quantity of  
667. special nuclear material?  
669. (Provide complete information by identifying the  
670. individuals and the country of which they are  
671. citizens.)  
672. 11. Does your organization have foreign involvement not  
673. otherwise covered in your answers to the above questions?  
674. (Describe the foreign involvement in detail, including  
675. why the involvement would not be reportable in the  
676. preceding questions.)  
677.

#### 678. CERTIFICATION

679. ( ) The offeror/bidder certifies that the entries made above are  
680. accurate, complete, and current to the best of my knowledge and  
681. belief and are made in good faith.  
683. ( ) The offeror/bidder certifies that the information requested  
684. above has previously been submitted to DOE as required for a  
685. facility security clearance and that the information is accurate,  
686. complete and current.  
687.  
688. (d) Prior to award of a contract under this solicitation, the  
689. DOE must determine that award of the contract to the  
690. offeror/bidder will not pose an undue risk to the common defense  
691. and security as a result of its access to classified information  
692. or a significant quantity of special nuclear material in the  
693. performance of the contract. In making the determination, the

694. contracting officer may consider a voting trust or other  
695. arrangements proposed by the offeror/bidder to mitigate or avoid  
696. FOCI. The contracting officer may require the offeror/bidder to  
697. submit such additional information as deemed pertinent to this  
698. determination.

699.  
700. (e) The offeror/bidder shall require any subcontractors  
700. having access to classified information or a significant quantity  
701. of special nuclear material to submit the certifications in (c)  
702. above directly to the DOE contracting officer.

703.  
704.  
705. (f) Information submitted by the offeror/bidder in response  
706. to the questions in (c) above is to be used solely for purposes  
707. of evaluating foreign ownership, control, or influence and shall  
708. be treated by DOE, to the extent permitted by law, as business or  
709. financial information submitted in confidence.

710.  
711.  
712. FAR 52.208-2 JEWEL BEARINGS AND RELATED ITEMS CERTIFICATE (APR  
713. 1984)

714. (a) This is to certify that;

715.  
716. (1) Jewel bearings and/or related items, as defined in the  
717. Required Sources for Jewel Bearings and Related Items clause, ( )  
718. will, ( ) will not be incorporated into any item (check one)  
719. covered by this offer;

720.  
721. (2) Any jewel bearings required (or an equal quantity of  
722. the same type, size, and tolerances) will be ordered from  
723. the William Langer Plant, Rolla, North Dakota 58367, as provided  
724. in the Required Sources for Jewel Bearings and Related Items  
725. clause; and

726.  
727. (3) Any related items required (or an equal quantity of the  
728. same type, size, and tolerances) will be acquired from domestic  
729. manufacturers, including the Plant, if the items can be obtained  
730. from those sources.

731.  
732. (b) Attached to this certificate are estimates of the  
733. quantity, type, and size (including tolerances) of the jewel  
734. bearings and related items required, and identification of the  
735. components, subassemblies, or parts that require jewel bearings  
736. or related items.

737. Date of Execution Solicitation No. Name Title Firm Address

743. DEAR 952.209-70 ORGANIZATIONAL CONFLICTS OF INTEREST DISCLOSURE  
744. OR REPRESENTATION (APR 1984)

746.  
747. It is Department of Energy policy to avoid situations  
748. which place an offeror in a position where its judgment may be  
749. biased because of any past, present, or currently planned  
750. interest, financial or otherwise, the offeror may have which  
751. relates to the work to be performed pursuant to this solicitation  
752. or where the offeror's performance of such work may provide it  
753. with an unfair competitive advantage. (As used herein, "offeror"  
754. means the proposer or any of its affiliates or proposed  
consultants or subcontractors of any tier.) Therefore:

757. (a) The offeror shall provide a statement which describes in  
758. a concise manner all relevant facts concerning any past, present  
759. or currently planned interest (financial, contractual,  
760. organ-izational, or otherwise) relating to the work to be  
760. performed hereunder and bearing on whether the offeror has a  
761. possible organizational conflict of interest with respect to (1)  
762. being able to render impartial, technically sound, and objective  
764. assistance or advice, or (2) being given an unfair competitive  
765. advantage. The offeror may also provide relevant facts that show  
766. how its organizational structure and/or management systems limit  
767. its knowledge of possible organizational conflicts of interest  
768. relating to other divisions or sections of the organization and  
769. how that structure or system would avoid or mitigate such  
770. organ-izational conflict.

771.  
772. (b) In the absence of any relevant interests referred to  
773. above, the offeror shall submit a statement certifying that to  
774. its best knowledge and belief no such facts exist relevant to  
775. possible organizational conflicts of interest. Proposed  
776. consultants and subcontractors are responsible for submitting  
777. information and may submit it directly to the contracting  
777. officer.

778.  
779. (c) The Department will review the statement submitted and  
780. may require additional relevant information from the offeror.  
781. All such information, and any other relevant information known to  
782. the Department, will be used to determine whether an award to the  
783. offeror may create an organizational conflict of interest is  
783. found to exist, the Department may (1) impose appropriate  
784. conditions which avoid such conflict, (2) disqualify the offeror,  
785. or (3) determine that it is otherwise in the best interest of the  
786. United States to contract with the offeror by including  
787. appropriate conditions mitigating such conflict in the contract  
788. awarded.

789.  
790. (d) The refusal to provide the disclosure or representation  
791. and any additional information as required shall result in  
792. disqualification of the offeror for award. The nondisclosure or  
793. misrepresentation of any relevant interest may also result in the  
794. disqualification of the offeror for award, or if such  
794. nondisclosure or misrepresentation is discovered after award, the  
795. resulting contract may be terminated for default. The offeror  
796. may also be disqualified from subsequent related Department  
797. contracts, and be subject to such other remedial action as may be  
798. permitted or provided by law or in the resulting contract. The  
799. attention of the offeror in complying with this provision is  
800. directed to 18 U.S.C. 1001.

801.  
802. (e) Depending on the nature of the contract activities, the  
803. offeror may, because of possible organizational conflicts of  
804. interest, propose to exclude specific kinds of work from the  
805. statement, unless the solicitation specifically prohibits such  
806. exclusion. Any such proposed exclusion by an offeror shall be  
807. considered by the Department in the evaluation of proposals, and  
808. if the Department considers the proposed excluded work to be an  
809. essential or integral part of the required work, the proposal may  
810. be rejected as unacceptable.  
811.  
812.



813. (f) No award shall be made until the disclosure or  
814. representation has been evaluated by the Government. Failure to  
815. provide the disclosure or representation will be deemed to be a  
816. minor informality (FAR 1-2.405) and the offeror or contractor  
818. shall be required to promptly correct the omission.

819. FAR 52.220.1 PREFERENCE FOR LABOR SURPLUS AREA CONCERNS (APR  
819. 1984)

820.  
821. (a) This acquisition is not a set aside for labor surplus  
822. area (LSA) concerns. However, the offeror's status as such a  
823. concern may affect (1) entitlement to award in case of tie offers  
824. or (2) offer evaluation in accordance with the Buy American Act  
825. clause of this solicitation

826.  
827. In order to determine whether the offeror is entitled to a  
828. preference under (1) or (2) above, the offeror must identify,  
829. below, the LSA in which the costs to be incurred on account of  
830. manufacturing or production (by the offeror or the first-tier  
831. subcontractors) amount to more than 50 percent of the contract  
832. price.

833.  
834. (b) Failure to identify the locations as specified above  
834. will preclude consideration of the offeror as an LSA concern. If  
836. the offeror is awarded a contract as an LSA concern and would not  
837. have otherwise qualified for award, the offeror shall perform the  
838. contract or cause the contract to be performed in accordance with  
839. the obligations of an LSA

840.  
841.  
842. FAR 52.223-4 RECOVERED MATERIAL CERTIFICATION

843.  
844.  
845. The offeror certifies, by signing this offer, that recovered  
846. materials, as defined in section 23.402 of the Federal  
847. Acquisition Regulation, will be used as required by the  
848. applicable specifications.

849.  
850.  
851. FAR 52.225-6 BALANCE OF PAYMENTS PROGRAM CERTIFICATE (APR 1984)

852.  
853.  
854. (a) The offeror hereby certifies that each end product or  
854. service, except the end products or services listed below, is a  
855. domestic end product or service (as defined in the clause  
856. entitled "balance of Payments Program") and that components of  
857. unknown origin have been considered to have been mined, produced,  
858. or manufactured outside the United States.

860.  
861.  
862. Excluded End Products or Services

863.  
864. Line Item No. Country of Origin  
865. ....  
866. ....

867.  
868. (b) Offers will be evaluated by giving a certain preference  
869. to domestic end products or services over foreign end products or  
870. services.

872. Evaluation will be in accordance with paragraph 25.303(b) of  
873. the Federal Acquisition Regulation.

874.  
883. FAR 52.230-1 COST ACCOUNTING STANDARDS NOTICES AND  
884. CERTIFICATIONS-NATIONAL DEFENSE (APR 1984)

885.  
886. Note: This notice does not apply to small businesses or foreign  
887. governments.

888.  
889. This notice is in four parts, identified by Roman numerals I  
890. through IV.

891. Offerors shall examine each part and provide the requested  
892. information in order to determine Cost Accounting Standards (CAS)  
893. requirements applicable to any resultant contract.

894.  
895. I. DISCLOSURE STATEMENT-COST ACCOUNTING PRACTICES AND  
896. CERTIFICATION

897.  
898. (a) Any contract in excess of \$100,000 resulting from this  
899. solicitation, except contracts in which the price negotiated is  
900. based on (1) established catalog or market prices of commercial  
901. items sold in substantial quantities to the general public, or  
902. (2) prices set by law or regulation; and except for contracts  
903. which may be exempt under the provisions of 4 CFR 331.30(b), will  
904. be subject to the requirements of the Cost Accounting Standards  
905. Board (CASB).

906.  
907. (b) Any offeror submitting a proposal which, if accepted,  
908. will result in a contract subject to the requirements of the CASB  
909. must, as a condition of contracting, submit  
910. a Disclosure Statement as required by regulations of the Board.

911.  
912. The Disclosure Statement must be submitted as a part of the  
913. offeror's proposal under this solicitation unless the offeror has  
914. already submitted a Disclosure Statement disclosing the practices  
915. used in connection with the pricing of this proposal. If an  
916. applicable Disclosure Statement has already been submitted, the  
917. offeror may satisfy the requirement for submission by providing  
918. the information requested in paragraph (c) below.

919.  
920. CAUTION: A practice disclosed in a Disclosure Statement shall  
921. not, by virtue of such disclosure, be deemed to be a proper,  
922. approved, or agreed-to practice for pricing proposals or  
923. accumulating and reporting contract performance cost data.

924.  
925. (c) Check the appropriate box below:  
926.  
927. ( ) (1) Certificate of Concurrent Submission of Disclosure  
928. Statement

929.  
930. The offeror hereby certifies that, as a part of the offer,  
931. copies of the Disclosure Statement have been submitted as  
931. follows: (i) original and one copy to the cognizant  
932. Administrative Contracting Officer (ACO), and (ii) one copy to  
933. the cognizant contract auditor.

934.  
935. (Disclosure must be on Form Number CASB-DS-1. Forms may be  
936. obtained from the cognizant ACO.)  
937.

938. Date of Disclosure Statement: Name and Address of Cognizant ACO  
939. where filed:  
940.  
941. The offeror further certifies that practices used in  
942. estimating costs in pricing this proposal are consistent with the  
943. cost accounting practices disclosed in the Disclosure Statement.  
944.  
945. ( ) (2) Certificate of Previously Submitted Disclosure  
946. Statement  
947.  
948. The offeror hereby certifies that Disclosure Statement was  
949. filed as follows:  
950.  
951. Date of Disclosure Statement: Name and Address of Cognizant ACO  
952. where filed:  
953.  
954. The offeror further certifies that the practices used in  
955. estimating costs in pricing this proposal are consistent with the  
956. cost accounting practices disclosed in the applicable disclosure  
957. statement.  
958.  
959. ( ) (3) Certificate of Monetary Exemption  
960.  
961. The offeror hereby certifies that the offeror, together with  
962. all divisions, subsidiaries, and affiliates under common control,  
963. did not receive net awards of negotiated national defense prime  
964. contracts and subcontracts subject to CAS totaling more than \$10  
965. million in the cost accounting period in the cost accounting  
966. period immediately preceding the immediately preceding the period  
967. in which this proposal was submitted. The offeror further  
968. certifies that if such status changes before an award resulting  
969. from this proposal, the offeror will advise the Contracting  
970. Officer immediately.  
971.  
972. ( ) (4) Certificate of Interim Exemption  
973.  
974. The offeror hereby certifies that (i) the offeror first  
975. exceeded the monetary exemption for disclosure, as defined in (3)  
976. above, in the cost accounting period immediately preceding the  
977. period in which this offer was submitted and (ii) in accordance  
978. with the regulations of the CASB (4 CFR 351.40(f)), the offeror  
979. is not yet required to submit a Disclosure Statement. The  
980. offeror further certifies that if an award resulting from this  
981. proposal has not been made within 90 days after the end of that  
982. period, the offeror will immediately submit a revised certificate  
983. to the Contracting Officer, in the form specified under (1) or  
984. (2) above, as appropriate, to verify submission of a completed  
985. Disclosure Statement.  
986.  
987. CAUTION: Offerors currently required to disclose because they  
988. awarded a CAS-covered national defense prime contract or  
988. subcontract of \$10 million or more in the current cost accounting  
989. period may not claim this exemption (4).  
990.  
991. Further, the exemption applies only in connection with  
992. proposals submitted before expiration of the 90-day period  
993. following the cost accounting period in which the monetary  
994. exemption was exceeded.  
995.  
996.

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II. COST ACCOUNTING STANDARDS-EXEMPTION FOR CONTRACTS OF \$500,000 OR LESS

If this proposal is expected to result in the award of a contract of \$500,000 or less, the offeror shall indicate whether the exemption below is claimed. Failure to check the box below shall mean that the resultant contract is subject to CAS requirements or that the offeror elects to comply with such requirements.

( ) The offeror hereby claims an exemption from the CAS requirements under the provisions of 4 CFR 331.30(b)(7) and certifies that notification of final acceptance of all deliverable items has been received on all prime contracts or subcontracts containing the Cost Accounting Standards clause or the Disclosure and Consistency of Cost Accounting Practices clause. The offeror further certifies that the Contracting Officer will be immediately notified in writing when an award of any other contract or subcontract containing Cost Accounting Standards clauses is received by the offeror subsequent to this certificate but before the date of any award resulting from this proposal.

III. COST ACCOUNTING STANDARDS-ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 4 CFR 332 and elects to do so, the offeror shall indicate by checking the box below.

Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

( ) The offeror hereby claims an exemption from the cost Accounting Standards clause under the provisions of 4 CFR 331.30(b)(2) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because (i) during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$10 million in awards of CAS-covered national defense prime contracts and subcontracts, and (ii) the sum of such awards equaled less than 10 percent of total sales during that cost accounting period.

The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a national defense contract of \$10 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered national defense prime contract or subcontract of \$10 million or more.

IV. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

1059. The offeror shall indicate below whether award of the  
1060. contemplated contract would, in accordance with paragraph (a)(3)  
1061. of the Cost Accounting Standards clause, require a change in  
1062. established cost accounting practices affecting existing  
1063. contracts and subcontracts.

1064.  
1065. ( ) YES ( ) NO  
1066.

1067. NOTE: If the offeror has checked "yes" above and is awarded the  
1068. contemplated contract, the offeror will be required to comply  
1069. with the requirements of paragraphs (a)(i), (b) and (c) of the  
1070. Administration of Cost Accounting Standards Clause.

1071.  
1072. FAR 52.230-2 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION  
1072. (NONDEFENSE) (APR 1984)

1074.  
1075. Note: This notice does not apply to small businesses or foreign  
1075. governments.

1076.  
1077. (a) Any contract over \$100,000 resulting from this  
1077. solicitation shall be subject to Cost Accounting Standards (CAS)  
1078. if it is awarded to a business unit that is currently performing  
1079. a national defense CAS-covered contract or subcontract, except  
1080. when;

1081.  
1082. (1) The award is based on adequate price competition;

1083.  
1084. (2) The price is set by law or regulation;

1085.  
1086. (3) The price is based on established catalog or market  
1086. prices of commercial items sold in substantial quantities to the  
1087. general public; or

1088.  
1089. (4) One of the exemptions in 4 CFR 331.30(b) applies (also  
1090. see Federal Acquisition Regulation (FAR) 30.301(b)).

1091.  
1092. (b) Contracts not exempted from CAS shall be subject to  
1092. full or modified coverage as follows:

1094.  
1095. (1) If the business unit receiving the award is currently  
1096. performing a national defense contract or subcontract subject to  
1097. full CAS coverage (4 CFR 331), this contract will have full CAS  
1098. coverage and will contain the clauses from the FAR entitled Cost  
1099. Accounting Standards (52.230-3) Administration of Cost Accounting  
1100. Standards (52.230-4).

1101.  
1102. If the business unit receiving the award is currently  
1103. performing a national defense contract or subcontract subject to  
1104. modified CAS coverage (4 CFR 332), this contract will have  
1105. modified coverage and will contain the clauses entitled  
1106. Disclosure and Consistency of Cost Accounting Practices  
1107. (52.230-5) and Administration of Cost Accounting Standards  
1108. (52.230-4).

1109.  
1110. A. Certificate of CAS Applicability

1111.  
1112. ( ) The offeror is not performing any CSA-covered national  
1113. defense contract or subcontract.  
1114.

1115. The offeror further certifies that it will immediately  
1116. notify the Contracting Officer in writing if it is awarded any  
1117. national defense CAS-covered contract or subcontract subsequent  
1118. to the date of this certificate but before the date of the award  
1119. of a contract resulting from this solicitation. (If this  
1120. statement applies, no further certification is required.)  
1121.

1122. ( ) The offeror is currently performing a negotiated national  
1123. defense contract or subcontract that contains the Cost Accounting  
1124. Standards clause at FAR 52.230-3.  
1125.

1126. ( ) The offeror is currently performing a negotiated national  
1127. defense contract or subcontract that contains the Disclosure and  
1128. Consistency of Cost Accounting Practices clause at FAR 52.230-5.  
1130.

1131. B. Additional Certification-CAS Applicable Offerors  
1132.

1133. ( ) The offeror subject to Cost Accounting Standards further  
1134. certifies that practices used in estimating costs in pricing this  
1135. proposal are consistent with the practices disclosed in the  
1136. Disclosure Statement where it has been submitted pursuant to CAS  
1137. Board regulations (4 CFR 351).  
1138.

1139. C. Data Required-CAS Covered Offerors  
1140.

1141. The offeror certifying that it is currently performing a  
1142. national defense contract containing either CAS clause (see A  
1143. above) is required to furnish the name, address (including agency  
1144. or department component), and telephone number of the cognizant  
1145. Contracting Officer administering the offeror's CAS-covered  
1146. contracts.  
1147.

1148. Name of Contracting Officer: Address: Telephone Number:  
1151.

1152. FAR 52.247-2 PERMITS, AUTHORITIES, OR FRANCHISES (APR 1984)  
1153.

1154. The offeror certifies that the offeror does ( ), does not ( )  
1154. ), hold authorization from the Interstate Commerce Commission or  
1156. other cognizant regulatory body.  
1157.

1158. If authorization is held, it is as follows:  
1159.

1160. (Name of regulatory body)  
1161.

1162. (Authorization No.)  
1163.

1164. (b) The offeror shall furnish to the Government, if  
1164. requested, copies of the authorization before moving the material  
1165. under any contract awarded.  
1167.

1168. In addition, the offeror shall, at the offeror's expense,  
1168. obtain and maintain any permits, franchises, licenses, and other  
1170. authorities issued by State and local governments.  
1171.

1172. 952.227-80 TECHNICAL DATA CERTIFICATION.  
1173.

1174. In solicitations which may involve the acquisition of  
1175. technical data, obtain the following certification.  
1176.

1177. Technical Data Certification

1179.  
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1234.

(a) The offeror certifies that it has not delivered or is not obligated to deliver to the Government under any contract or subcontract the same or substantially the same technical data included in its offer, except as set forth below:

( ) none

( ) Contract No. (and Subcontract No., if applicable)

\_\_\_\_\_

Agency	name	and	place	of	delivery
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

(b) The work to be performed and the known requirements for technical data as set forth in the solicitation have been reviewed. To the best of my knowledge:

/ / There will be no technical data withheld from delivery as being proprietary data.

/ / The technical data listed on page \_\_\_\_\_ of the proposal will likely be used in conjunction with the performance of work under the contract and is represented as being proprietary data to be protected from unauthorized use and disclosure and therefore to be withheld from delivery in a report not having a restrictive legend.

952.227-81 ROYALTY PAYMENTS CERTIFICATION.

In order that DOE may be informed regarding royalty payments to be made by a contractor in connection with any procurement, construction, or operation where the amount of the royalty payment is reflected in the contract price, or is to be reimbursed by the Government, check one of the following:

( ) The Contract price includes no amount representing the payment of royalty by the offeror directly to others in connection with the performance of the contract.

( ) The contract price includes an amount for royalty payment expected to be made in connection with the proposed award. The Offeror shall set forth below: (1) the amount of each payment, (2) the names of the licensor, (3) either the patent numbers involved or such other information as will permit identification of the patents and patent applications and the basis on which royalties will be paid.

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1248.

Certified correct by:

Date \_\_\_\_\_

Signature \_\_\_\_\_

Typed Name \_\_\_\_\_

Title \_\_\_\_\_

Organization \_\_\_\_\_

\_\_\_\_\_



SECTION J

ATTACHMENTS

<u>Attachment No.</u>	<u>Page</u>
1. Volume I - Proposal Cover Page .....	150
2. Volume II - Proposal Cover Page .....	151
3. Certification of Qualification Criteria .....	152
4. Sources of Referenced Documents .....	153
5. Late Proposal Rules (DOE FAR 600.13) .....	154
6. Pricing Proposal Form 1141 .....	156
7. Reporting Requirements .....	160
8. Standard Form 424 .....	163
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10. Environmental Guidelines .....	192
11. Glossary of Terms .....	193

SAMPLE DOE PROPOSAL COVER PAGE VOLUME I  
SUBMITTED TO THE DEPARTMENT OF ENERGY  
IDAHO OPERATIONS OFFICE

CASCADES THERMAL GRADIENT DRILLING  
SCAP No. DE-SC07-85ID12580

Copy No. \_\_\_\_\_ of 10

Date of Submission \_\_\_\_\_

\_\_\_\_\_  
Name of Organization

\_\_\_\_\_  
Type of Organization

\_\_\_\_\_  
Address of Organization

\_\_\_\_\_  
Title of Proposed Project

Location of Site \_\_\_\_\_

Proposed Project Duration (in months) \_\_\_\_\_

Proposed Starting Date \_\_\_\_\_

Project Manager \_\_\_\_\_

Telephone (w/area code) \_\_\_\_\_

Authorized Official

Signature \_\_\_\_\_

Name Typed \_\_\_\_\_

Title \_\_\_\_\_ Date \_\_\_\_\_

SAMPLE DOE PROPOSAL COVER PAGE VOLUME II  
SUBMITTED TO THE DEPARTMENT OF ENERGY  
IDAHO OPERATIONS OFFICE

CASCADES THERMAL GRADIENT DRILLING  
SCAP No. DE-SC07-85ID12580

Copy No. \_\_\_\_\_ of 10

Date of Submission \_\_\_\_\_

\_\_\_\_\_  
Name of Organization

\_\_\_\_\_  
Type of Organization

\_\_\_\_\_  
Address of Organization

\_\_\_\_\_  
Title of Proposed Project

Maximum Funds requested from DOE \_\_\_\_\_ Total Cost of Project \_\_\_\_\_

Cost-Share Percentage: DOE \_\_\_\_\_ Participant \_\_\_\_\_

Location of Site \_\_\_\_\_

Proposed Project Duration (in months) \_\_\_\_\_

Requested Starting Date \_\_\_\_\_

Official Contact for Negotiations \_\_\_\_\_

Title \_\_\_\_\_

Telephone (w/area code) \_\_\_\_\_

Effective Period of Proposal \_\_\_\_\_ 200 days \_\_\_\_\_

AUTHORIZED OFFICIAL

Signature \_\_\_\_\_

Name Typed \_\_\_\_\_

Title \_\_\_\_\_ Date \_\_\_\_\_

Please Check Small Business \_\_\_\_\_ Disadvantaged Business \_\_\_\_\_ Other \_\_\_\_\_

CERTIFICATION OF QUALIFICATION CRITERIA

I hereby certify the following:

- | <u>Yes</u>                  | <u>No</u>                |  |
|-----------------------------|--------------------------|--|
| A. <input type="checkbox"/> | <input type="checkbox"/> | The proposed site is located within the Cascades volcanic region of the United States as delineated by Figure 1. |
| B. <input type="checkbox"/> | <input type="checkbox"/> | The proposed DOE cost-share does not exceed 50 percent.  |
| C. <input type="checkbox"/> | <input type="checkbox"/> | The proposed hole is a minimum of 3000 feet deep.  |
| D. <input type="checkbox"/> | <input type="checkbox"/> | I agree to complete the hole and allow DOE access to the hole for data acquisition.                              |

Proposing Organization \_\_\_\_\_

Signature \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Sources of Referenced Documents:

- a. Copies of the Federal Acquisition Regulations (Code of Federal Regulations, Title 41, Chapter 1), the DOE Acquisition Regulations (Code of Federal Regulations, Title 41, Chapter 9), the DOE Financial Assistance Rules, and the Source Evaluation Board Handbook may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a nominal cost.
- b. The OMB Circulars may be obtained from:

Office of Management and Budget  
Office of Administration  
Publications Unit  
Room G-236  
New Executive Office Building  
Washington, D.C. 20503  
Telephone: 202-395-7332

LATE PROPOSAL RULESDOE-FAR 600.13 PROPOSAL DEADLINES

A proposal or proposal amendment shall be timely if it is:

1. Received at the location specified in the solicitation on or before the established deadline date and time; or
2. Received after the deadline date and the proposal or proposal amendment was sent by first class mail, was postmarked on or before the deadline date, and is received by DOE before technical evaluation of all acceptable proposals submitted in response to the solicitation begins. Proposers should obtain a legibly dated mailing receipt from the US Postal Service or use certified or registered mail to enable them to substantiate the date of mailing. Private metered postmarks shall not be acceptable proof of the date of mailing; and
3. Complete (See 600.10 below).

DOE shall not consider and shall return any application that does not meet the requirements of 1., 2., and 3. above.

If necessary, DOE may extend an established proposal deadline by publishing a timely notice of the extension in the same manner as the solicitation was publicized. The extension of time shall apply to all proposers.

DOE-FAR 600.10 FORM AND CONTENT OF PROPOSALS

- (a) Forms. Proposals shall be on the form or in the format specified by DOE in the applicable solicitation and must include all required information. For State government, local governments, or Indian tribal governments, proposals shall be made on the forms prescribed by OMB Circular A-102, Attachment M. Such proposers shall not be required to submit more than the original and two copies of their proposal.
- (b) Signature. The proposal must be signed by the individual who is proposing or by an individual who is authorized to act for the proposing organization and to commit the proposer to comply with the terms and conditions of the financial assistance instrument, if awarded.
- (c) Contents. In general, a financial assistance proposal shall include:
  - (1) A facesheet containing basic identifying information;
  - (2) A narrative description of the proposed project, including the objectives of the project and the proposer's plan for carrying it out;

- (3) A budget with supporting justification;
  - (4) Any required preaward assurances.
- (d) Incomplete proposals. DOE may return a proposal which does not include all information and documentation required by statute, program rule, and the solicitation, if, in the judgment of the DOE Contracting Officer, the nature of the omission precludes review of the proposal.

**CONTRACT PRICING PROPOSAL COVER SHEET**

1. SOLICITATION/CONTRACT/MODIFICATION NO.

FORM APPROVED  
OMB NO.  
**3090-0116**

NOTE: This form is used in contract actions if submission of cost or pricing data is required. (See FAR 15.804-6(b))

2. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

3A. NAME AND TITLE OF OFFEROR'S POINT OF CONTACT

3B. TELEPHONE NO.

4. TYPE OF CONTRACT ACTION (Check)

- |   |   |
|---|---|
| <input type="checkbox"/> A. NEW CONTRACT                    | <input type="checkbox"/> D. LETTER CONTRACT |
| <input type="checkbox"/> B. CHANGE ORDER                    | <input type="checkbox"/> E. UNPRICED ORDER  |
| <input type="checkbox"/> C. PRICE REVISION/ REDETERMINATION | <input type="checkbox"/> F. OTHER (Specify) |

5. TYPE OF CONTRACT (Check)

- FFP     CPFF     CPIF     CPAF  
 FPI     OTHER (Specify)

6. PROPOSED COST (A+B=C)

- |         |               |          |
|---------|---------------|----------|
| A. COST | B. PROFIT/FEE | C. TOTAL |
| \$      | \$            | \$       |

7. PLACE(S) AND PERIOD(S) OF PERFORMANCE

8. List and reference the identification, quantity and total price proposed for each contract line item. A line item cost breakdown supporting this recap is required unless otherwise specified by the Contracting Officer. (Continue on reverse, and then on plain paper, if necessary. Use same headings.)

A. LINE ITEM NO.	B. IDENTIFICATION	C. QUANTITY	D. TOTAL PRICE	E. REF.

9. PROVIDE NAME, ADDRESS, AND TELEPHONE NUMBER FOR THE FOLLOWING (If available)

A. CONTRACT ADMINISTRATION OFFICE

B. AUDIT OFFICE

10. WILL YOU REQUIRE THE USE OF ANY GOVERNMENT PROPERTY IN THE PERFORMANCE OF THIS WORK? (If "Yes," identify)

- YES     NO

11A. DO YOU REQUIRE GOVERNMENT CONTRACT FINANCING TO PERFORM THIS PROPOSED CONTRACT? (If "Yes," complete Item 11B)

- YES     NO

11B. TYPE OF FINANCING (√ one)

- ADVANCE PAYMENTS     PROGRESS PAYMENTS  
 GUARANTEED LOANS

12. HAVE YOU BEEN AWARDED ANY CONTRACTS OR SUBCONTRACTS FOR THE SAME OR SIMILAR ITEMS WITHIN THE PAST 3 YEARS? (If "Yes," identify item(s), customer(s) and contract number(s))

- YES     NO

13. IS THIS PROPOSAL CONSISTENT WITH YOUR ESTABLISHED ESTIMATING AND ACCOUNTING PRACTICES AND PROCEDURES AND FAR PART 31 COST PRINCIPLES? (If "No," explain)

- YES     NO

14. COST ACCOUNTING STANDARDS BOARD (CASB) DATA (Public Law 91-379 as amended and FAR PART 30)

A. WILL THIS CONTRACT ACTION BE SUBJECT TO CASB REGULATIONS? (If "No," explain in proposal)

- YES     NO

B. HAVE YOU SUBMITTED A CASB DISCLOSURE STATEMENT (CASB DS-1 or 2)? (If "Yes," specify in proposal the office to which submitted and if determined to be adequate)

- YES     NO

C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON-COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)

- YES     NO

D. IS ANY ASPECT OF THIS PROPOSAL INCONSISTENT WITH YOUR DISCLOSED PRACTICES OR APPLICABLE COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)

- YES     NO

This proposal is submitted in response to the RFP contract, modification, etc. in Item 1 and reflects our best estimates and/or actual costs as of this date.

15. NAME AND TITLE (Type)

16. NAME OF FIRM

17. SIGNATURE

18. DATE OF SUBMISSION



<b>PRICING PROPOSAL</b>					
<i>(RESEARCH AND DEVELOPMENT)</i>					
			PAGE NO.	NO. OF PAGES	
NAME OF OFFEROR		SUPPLIES AND/OR SERVICES TO BE FURNISHED			
HOME OFFICE ADDRESS					
DIVISION(S) AND LOCATION(S) WHERE WORK IS TO BE PERFORMED		TOTAL AMOUNT OF PROPOSAL	GOV'T SOLICITATION NO.		
		\$	DE-SC07-85ID12555		
DETAIL DESCRIPTION OF COST ELEMENTS					
1. DIRECT MATERIAL <i>(Itemize on Exhibit A)</i>		EST COST (\$)		TOTAL EST COST <sup>1</sup>	REFER- ENCE <sup>2</sup>
a. PURCHASED PARTS					
b. SUBCONTRACTED ITEMS					
c. OTHER—(1) RAW MATERIAL					
(2) YOUR STANDARD COMMERCIAL ITEMS					
(3) INTERDIVISIONAL TRANSFERS <i>(At other than cost)</i>					
<i>TOTAL DIRECT MATERIAL</i>					
2. MATERIAL OVERHEAD <sup>1</sup> <i>(Rate %X'S base =)</i>					
3. DIRECT LABOR <i>(Specify)</i>		ESTIMATED HOURS	RATE/HOUR	EST COST (\$)	
<i>TOTAL DIRECT LABOR</i>					
4. LABOR OVERHEAD <i>(Specify Department or Cost Center)<sup>1</sup></i>		O.H. RATE	X BASE =	EST COST (\$)	
<i>TOTAL LABOR OVERHEAD</i>					
5. SPECIAL TESTING <i>(Including field work at Government installations)</i>		EST COST (\$)			
<i>TOTAL SPECIAL TESTING</i>					
6. SPECIAL EQUIPMENT <i>(If direct charge) (Itemize on Exhibit A)</i>		EST COST (\$)			
7. TRAVEL <i>(If direct charge) (Give details on attached Schedule)</i>		EST COST (\$)			
a. TRANSPORTATION					
b. PER DIEM OR SUBSISTENCE					
<i>TOTAL TRAVEL</i>					
8. CONSULTANTS <i>(Identify—purpose—rate)</i>		EST COST (\$)			
<i>TOTAL CONSULTANTS</i>					
9. OTHER DIRECT COSTS <i>(Itemize on Exhibit A)</i>					
10. <i>TOTAL DIRECT COST AND OVERHEAD</i>					
11. GENERAL AND ADMINISTRATIVE EXPENSE <i>(Rate % of cost element Nos. )<sup>1</sup></i>					
12. ROYALTIES <sup>1</sup>					
13. <i>TOTAL ESTIMATED COST</i>					
14. FEE OR PROFIT					
15. <i>TOTAL ESTIMATED COST AND FEE OR PROFIT</i>					



## 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.

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 lowest of cost to the original transferee or current market price.

2. When space in addition to that available in Exhibit A is required, attach 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 estimate, 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 numbers 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

FEDERAL ASSISTANCE REPORTING CHECKLIST

FORM EIA-459A  
(10/80)

FORM APPROVED  
OMB NO. 1900-0127

1. Identification Number: DE-SC07-85ID12580	2. Program/Project Title:		
3. Recipient:			
4. Reporting Requirements:	Frequency	No. of Copies	Addressees
PROGRAM/PROJECT MANAGEMENT REPORTING			
<input checked="" type="checkbox"/> Federal Assistance Milestone Plan	0	2,1	A,B
<input type="checkbox"/> Federal Assistance Budget Information Form			
<input checked="" type="checkbox"/> Federal Assistance Management Summary Report	Q	1,1,1	A,B,C
<input checked="" type="checkbox"/> Federal Assistance Program/Project Status Report	Q	2,1	A,B
<input checked="" type="checkbox"/> Financial Status Report, OMB Form 269	Y,F	1,1	B,C
TECHNICAL INFORMATION REPORTING			
<input checked="" type="checkbox"/> Notice of Energy RD&D	O,Y	1,1	B,D
<input type="checkbox"/> Technical Progress Report			
<input checked="" type="checkbox"/> Topical Report	A	3,1	A,B
<input checked="" type="checkbox"/> Final Technical Report	F	*4,1	A,B
<p>FREQUENCY CODES AND DUE DATES:</p> <p>A - As Necessary; within 5 calendar days after events.                  F - Final; upon completion of Agreement.                  Q - Quarterly; within 30 days after end of calendar quarter or portion thereof.                  O - One time after project starts; within 30 days after award.                  X - Required with proposals or with the application or with significant planning changes.                  Y - Yearly; 30 days after the end of program year. (Financial Status Reports 90 days).                  S - Semiannually; within 30 days after end of program fiscal half year.</p>			
<p>5. Special Instructions:</p> <p>A draft of the Final Technical Report shall be submitted for review to the Contracting Officer at least 60 days prior to the final due date. Comments resulting from this review shall be resolved and the report revised accordingly prior to final submission to DOE. The Final Technical Report shall be submitted with a camera-ready copy.</p> <p>NOTE: CONTRACTING OFFICER COPY SHALL LIST ALL DISTRIBUTION.</p> <p>*Includes camera-ready copy</p>			
6. Prepared by: (Signature and Date)	7. Reviewed by: (Signature and Date)		

## FEDERAL ASSISTANCE REPORTING CHECKLIST

### PURPOSE

This form serves to identify plans and reports selected by DOE as reporting requirements for the Federal Assistance Program/Project.

### INSTRUCTIONS

Item 1 – Enter the program /project identification number as it appears in the official award.

Item 2 – Enter the program/project description as it appears in the official award.

Item 3 – Enter the name of the recipient.

Item 4 – Check spaces to indicate plans and reports selected. For each report checked, indicate frequency of delivery in column provided using one of the frequency of delivery codes as shown, as well as the number of copies requested and to whom they should be sent.

Federal Assistance Milestone Plan – presents, with the accompanying Milestone Log, a schedule of the planned activity.

Federal Assistance Budget Information Form – presents the planned costs.

Federal Assistance Management Summary Report – registers planned progress and costs to actual progress and costs in a capsulized format.

Federal Assistance Program/Project Status Report – periodically reports project status, explains variances and problems, and discusses any other areas of concern or achievements.

Financial Status Report, OMB Form 269 – presents the status of funds committed to the project.

Notice of energy R&D Project – provides information on unclassified DOE R&D Project for dissemination to the scientific, technical, and industrial communities and to the public. Also provides information to the Smithsonian Information Exchange and to the DOE Technical Information Center.

Technical Progress Report – periodically reports progress and/or results of DOE supported R&D and scientific projects covering a specific reporting period.

Topical Report – presents the technical results of work performed on a specific phase of a project.

Final Technical Report – presents a technical accounting of the total work performed on a project.

Frequency Codes - Each code represents a specific reporting frequency (such as Quarterly). These time periods are suggested in the program announcement and negotiated at the time of the award.

Item 5 – Identify any special reporting requirements or instructions not identified in Item 4. (Use additional sheets as necessary.)

Item 6 – Signature of person preparing the checklist and the date prepared. Preparation is by person responsible for program solicitation.

Item 7 – Signature of the person reviewing the checklist and date reviewed.

REPORT DISTRIBUTION LIST

DE-SC07-85ID12580

U. S. Department of Energy  
Idaho Operations Office  
550 Second Street  
Idaho Falls, ID 83401

- A. Susan M. Prestwich  
Geologist  
Advanced Technology Division
- B. Elizabeth M. Hyster  
Contract Specialist  
Contracts Management Division
- C. Earl G. Jones  
Director  
Financial Management Division
- D. U. S. Department of Energy  
Technical Information Center  
Oak Ridge, TN 37830



**GENERAL INSTRUCTIONS**

This is a multi-purpose standard form. First, it will be used by applicants as a required facesheet for pre-applications and applications submitted in accordance with Federal Management Circular 74-7. Second, it will be used by Federal agencies to report to Clearinghouses on major actions taken on applications reviewed by clearinghouses in accordance with OMB Circular A-95. Third, it will be used by Federal agencies to notify States of grants-in-aid awarded in accordance with Treasury Circular 1082. Fourth, it may be used, on an optional basis, as a notification of intent from applicants to clearinghouses, as an early initial notice that Federal assistance is to be applied for (clearinghouse procedures will govern).

**APPLICANT PROCEDURES FOR SECTION I**

Applicant will complete all items in Section I. If an item is not applicable, write "NA". If additional space is needed, insert an asterisk "\*", and use the remarks section on the back of the form. An explanation follows for each item:

- | Item   | Item   |
|--|--|
| 1. Mark appropriate box. Pre-application and application guidance is in FMC 74-7 and Federal agency program instructions. Notification of intent guidance is in Circular A-95 and procedures from clearinghouse. Applicant will not use "Report of Federal Action" box.  | D. Insurance. Self explanatory.  |
| 2a. Applicant's own control number, if desired.  | E. Other. Explain on remarks page.   |
| 2b. Date Section I is prepared.  | 10. Governmental unit where significant and meaningful impact could be observed. List only largest unit or units affected, such as State, county, or city. If entire unit affected, list it rather than subunits.  |
| 3a. Number assigned by State clearinghouse, or if delegated by State, by areawide clearinghouse. All requests to Federal agencies must contain this identifier if the program is covered by Circular A-95 and required by applicable State/areawide clearinghouse procedures. If in doubt, consult your clearinghouse. | 11. Estimated number of persons directly benefiting from project.  |
| 3b. Date applicant notified of clearinghouse identifier.   | 12. Use appropriate code letter. Definitions are:  |
| 4a-4h. Legal name of applicant/recipient, name of primary organizational unit which will undertake the assistance activity, complete address of applicant, and name and telephone number of person who can provide further information about this request.   | A. New. A submittal for the first time for a new project.  |
| 5. Employer identification number of applicant as assigned by Internal Revenue Service.  | B. Renewal. An extension for an additional funding/budget period for a project having no projected completion date, but for which Federal support must be renewed each year.   |
| 6a. Use Catalog of Federal Domestic Assistance number assigned to program under which assistance is requested. If more than one program (e.g., joint-funding) write "multiple" and explain in remarks. If unknown, cite Public Law or U.S. Code.   | C. Revision. A modification to project nature or scope which may result in funding change (increase or decrease).  |
| 6b. Program title from Federal Catalog. Abbreviate if necessary.   | D. Continuation. An extension for an additional funding/budget period for a project the agency initially agreed to fund for a definite number of years.  |
| 7. Brief title and appropriate description of project. For notification of intent, continue in remarks section if necessary to convey proper description.  | E. Augmentation. A requirement for additional funds for a project previously awarded funds in the same funding/budget period. Project nature and scope unchanged.  |
| 8. Mostly self-explanatory. "City" includes town, township or other municipality.  | 13. Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions will be included. If the action is a change in dollar amount of an existing grant (a revision or augmentation), indicate only the amount of the change. For decreases, enclose the amount in parentheses. If both basic and supplemental amounts are included, breakout in remarks. For multiple program funding, use totals and show program breakouts in remarks. Item definitions: 13a, amount requested from Federal Government; 13b, amount applicant will contribute; 13c, amount from State, if applicant is not a State; 13d, amount from local government, if applicant is not a local government; 13e, amount from any other sources, explain in remarks. |
| 9. Check the type(s) of assistance requested. The definitions of the terms are:  | 14a. Self explanatory.   |
| A. Basic Grant. An original request for Federal funds. This would not include any contribution provided under a supplemental grant.  | 14b. The district(s) where most of actual work will be accomplished. If city-wide or State-wide, covering several districts, write "city-wide" or "State-wide."  |
| B. Supplemental Grant. A request to increase a basic grant in certain cases where the eligible applicant cannot supply the required matching share of the basic Federal program (e.g., grants awarded by the Appalachian Regional Commission to provide the applicant a matching share).                               | 15. Complete only for revisions (item 12c), or augmentations (item 12e).   |
| C. Loan. Self explanatory.   |  |



- | Item   | Item   |
|--|--|
| 16. Approximate date project expected to begin (usually associated with estimated date of availability of funding).  | 19. Existing Federal identification number if this is not a new request and directly relates to a previous Federal action. Otherwise write "NA". |
| 17. Estimated number of months to complete project after Federal funds are available.  | 20. Indicate Federal agency to which this request is addressed. Street address not required, but do use ZIP.                                     |
| 18. Estimated date preapplication/application will be submitted to Federal agency if this project requires clearinghouse review. If review not required, this date would usually be same as date in item 2b. | 21. Check appropriate box as to whether Section IV of form contains remarks and/or additional remarks are attached.                              |

### APPLICANT PROCEDURES FOR SECTION II

Applicants will always complete items 23a, 23b, and 23c. If clearinghouse review is required, item 22b must be fully completed. An explanation follows for each item:

- | Item   | Item  |
|--|---|
| 22b. List clearinghouses to which submitted and show in appropriate blocks the status of their responses. For more than three clearinghouses, continue in remarks section. All written comments submitted by or through clearinghouses must be attached. | 23b. Self explanatory.  |
| 23a. Name and title of authorized representative of legal applicant.   | 23c. Self explanatory.  |
|  | Note: Applicant completes only Sections I and II. Section III is completed by Federal agencies. |

### FEDERAL AGENCY PROCEDURES FOR SECTION III

If applicant-supplied information in Sections I and II needs no updating or adjustment to fit the final Federal action, the Federal agency will complete Section III only. An explanation for each item follows:

- | Item   | Item  |
|--|---|
| 24. Executive department or independent agency having program administration responsibility.   | 35. Name and telephone no. of agency person who can provide more information regarding this assistance.   |
| 25. Self explanatory.  | 36. Date after which funds will no longer be available.   |
| 26. Primary organizational unit below department level having direct program management responsibility.  | 37. Check appropriate box as to whether Section IV of form contains Federal remarks and/or attachment of additional remarks.  |
| 27. Office directly monitoring the program.  | 38. For use with A-95 action notices only. Name and telephone of person who can assure that appropriate A-95 action has been taken—If same as person shown in item 35, write "same". If not applicable, write "NA". |
| 28. Use to identify non-award actions where Federal grant identifier in item 30 is not applicable or will not suffice.   |   |
| 29. Complete address of administering office shown in item 26.   |   |
| 30. Use to identify award actions where different from Federal application identifier in item 28.  |   |
| 31. Self explanatory. Use remarks section to amplify where appropriate.  |   |
| 32. Amount to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions will be included. If the action is a change in dollar amount of an existing grant (a revision or augmentation), indicate only the amount of change. For decreases, enclose the amount in parentheses. If both basic and supplemental amounts are included, breakout in remarks. For multiple program funding, use totals and show program breakouts in remarks. Item definitions: 32a, amount awarded by Federal Government; 32b, amount applicant will contribute; 32c, amount from State, if applicant is not a State; 32d, amount from local government if applicant is not a local government; 32e, amount from any other sources, explain in remarks. |   |
| 33. Date action was taken on this request.   |   |
| 34. Date funds will become available.  |   |
- Federal Agency Procedures—special considerations*
- A. *Treasury Circular 1082 compliance.* Federal agency will assure proper completion of Sections I and III. If Section I is being completed by Federal agency, all applicable items must be filled in. Addresses of State Information Reception Agencies (SCIRA's) are provided by Treasury Department to each agency. This form replaces SF 240, which will no longer be used.
- B. *OMB Circular A-95 compliance.* Federal agency will assure proper completion of Sections I, II, and III. This form is required for notifying all reviewing clearinghouses of major actions on all programs reviewed under A-95. Addresses of State and areawide clearinghouses are provided by OMB to each agency. Substantive differences between applicant's request and/or clearinghouse recommendations, and the project as finally awarded will be explained in A-95 notifications to clearinghouses.
- C. *Special note.* In most, but not all States, the A-95 State clearinghouse and the (TC 1082) SCIRA are the same office. In such cases, the A-95 award notice to the State clearinghouse will fulfill the TC 1082 award notice requirement to the State SCIRA. Duplicate notification should be avoided.

U.S. DEPARTMENT OF LABOR  
EMPLOYMENT STANDARDS ADMINISTRATION  
WAGE AND HOUR DIVISION  
WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
THE SERVICE CONTRACT ACT  
By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: WASHINGTON	WA
	Area: STATEWIDE	
Wage determination number: 78-1148 (Rev, 4)		Date: NOV 29 1983

Class of service employee	Minimum hourly wage	Fringe benefit payments				

Employed on contracts for drilling services in the above LOCALITY:

LABORERS

Zone 1    Zone 2    Zone 3    Zone 4    Zone 5

Area 1 - counties & portions of counties East of the 120th Meridian (except DOE Hanford Site in Benton and Franklin Counties)

- |  |         |
|--|---------|
| 1. General laborer   | \$13.72 |
| 2. Driller tender (when required to move and position machine) | 13.97   |
| 3. Air truck drill   | 14.22   |
| 4. Drills with dual masts                                      | 14.47   |

Fringe benefits applicable to classes (1 through 4) above:

1/

LABORERS

Area 2 - All counties West of the 120th Meridian (except those enumerated in Areas 3 and 4 and the Northern portion of Pacific County)

- |   |       |
|---|-------|
| 5. General laborer  | 15.16 |
| 6. Wagon driller & air trac tender well point laborer                 | 15.50 |
| 7. Bit grinder and drill doctor; wagon driller and air tract operator | 15.64 |

U.S. DEPARTMENT OF LABOR  
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 By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: WASHINGTON	WA
	Area: STATEWIDE	
Wage determination number: 78-1148 (Rev. 4)		Date: NOV 29 1983

Class of service employee	Minimum hourly wage	Fringe benefit payments					
		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6

Fringe benefits applicable to classes (5, 6, & 7) above:

2/

LABORERS

Area 3 - Clark, Cowlitz, Klickitat, Skamania, Wahkiakum and the Southern portion of Pacific Counties

8. General Laborer; driller's tenders	\$13.60	\$14.25	\$14.75	\$15.30	\$16.35	\$17.15
9. Drill doctor; wagon drill; rubber mounted drill and other similar types: strippers and drillers	14.25	14.90	15.40	15.95	17.00	17.80

Fringe benefits applicable to classes 8 & 9 above:

3/

LABORERS

Area 4 - Those portions of Chelan, Douglas, Kittitas, Okanogan and Yakima lying West of the 120th Meridian

10. General laborer	15.16
11. Wagon driller and air trac tender	15.50
12. Bit grinder and drill doctor	15.64

Fringe benefits applicable to classes (10, 11, 12) above:

2/

U.S. DEPARTMENT OF LABOR  
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 WASHINGTON, D.C. 20210

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 By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: WASHINGTON	WA
	Area: STATEWIDE	
Wage determination number: 78-1148 (Rev, 4)		Date: NOV 29 1983

Class of service employee	Minimum hourly wage	Fringe benefit payments				

POWER EQUIPMENT OPERATORS

Zone 1    Zone 2    Zone 3    Zone 4    Zone 5

Area 1 - all Counties and portions of counties East of the 120th Meridian (except DOE Hanford Site in Benton and Franklin Counties)

- 13. Driller's tender \$13.65
- 14. Vacuum drill (reverse circulation drill, under 5" inch bit) 14.65

Fringe benefits applicable to classes 13 & 14 above: 4/

POWER EQUIPMENT OPERATORS

Area 2 - All counties and portions of counties West of the 120th Meridian (except those enumerated in

- 15. Drilling machine 17.79

Fringe benefits applicable to class 15 above: 5/

POWER EQUIPMENT OPERATORS

Area 3 - Clark, Cowlitz, Klickitat Skamania,

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ATTACHMENT 9

U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
 WAGE AND HOUR DIVISION  
 WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
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W. M. Otter

Administrator

LOCALITY	State: WASHINGTON	WA
	Area: STATEWIDE	
Wage determination number: 78-1148 (Rev. 4)		Date: NOV 29 1983

Class of service employee	Minimum hourly wage	Fringe benefit payments					
		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6

POWER EQUIPMENT OPERATORS

Wahkiakum and the Southern Portion of Pacific County

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
16. Driller tender	\$15.18	\$15.83	\$16.33	\$16.88	\$17.93	\$18.73
17. Churn drill and earth boring machine	15.74	16.39	16.89	17.44	18.49	19.29
18. Drill cat operator, drill doctor (bit grinder)	15.96	16.61	17.11	17.66	18.71	19.51
19. Driller-percussion, diamond core, cable, rotary and similar types	16.04	16.69	17.19	17.74	18.79	19.59

Fringe benefits applicable to classes (16 thru 19) listed above:

- 1/ \$3.37 per hour per employee.
- 2/ \$2.88 per hour per employee.
- 3/ \$3.55 per hour per employee.
- 4/ \$4.35 per hour per employee.
- 5/ \$3.66 per hour per employee.
- 6/ \$4.15 per hour per employee.

6/

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Administrator

LOCALITY	State: WASHINGTON	WA
	Area: STATEWIDE	
Wage determination number: 78-1148 (Rev, 4)		Date: NOV 29 1983
Class of service employee	Minimum hourly wage	Fringe benefit payments

ZONE WAGE SCALE (AREA 1)

LABORERS

POWER EQUIPMENT OPERATORS

Travel Zone Centers:

Moses Lake

\*Coeur d'Alene

Pasco

Spokane

\*Walla Walla

Lewiston

\*15 mile free zone

- Zone 1 - within a 15 mile radius from the center of the above named Cities
- Zone 2 - 15-30 miles radius from the center of the above named Cities
- Zone 3 - 30-45 miles radius from the center of the above named Cities
- Zone 4 - 45-90 miles radius from the center of the above named Cities
- Zone 5 - over 90 miles radius from the center of the above named Cities

ZONE WAGE SACLE (AREA 3) ONLY

LABORERS

Goldendale, Longview and Vancouver

POWER EQUIPMENT OPERATORS

Astoria, Goldendale, Hood River, Longview, The Dalles  
 and Vancouver

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U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
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W. M. Otter

Administrator

LOCALITY	State: WASHINGTON	WA
	Area: STATEWIDE	
Wage determination number: 78-1148 (Rev. 4)		Date: NOV 29 1983
Class of service employee	Minimum hourly wage	Fringe benefit payments

- Zone 1 - all jobs or projects located within 10 miles of the respective City Hall
- Zone 2 - more than 10 miles but less than 25 miles from the respective City Hall
- Zone 3 - more than 25 miles but less than 35 miles from the respective City Hall
- Zone 4 - more than 35 miles but less than 45 miles from the respective City Hall
- Zone 5 - more than 45 miles but less than 75 miles from the respective City Hall
- Zone 6 - more than 75 miles from the respective City Hall

**NOTE:** Any class of service employee required in the performance of the contract but not listed above shall be classified by the contractor so as to provide a reasonable relationship between such classes and those listed above, and shall be paid such monetary wages as are determined by agreement (evidenced in writing) of the interested parties, who shall be deemed to be the contracting agency, the contractor, and the employees who will perform on the contract or their representatives. In the absence of an agreement, the question of proper conformable wage rates is to be submitted to the Department of Labor by the contracting officer for a final determination. (See Section 4.6(b) of Regulations 29 CFR 4).

U.S. DEPARTMENT OF LABOR  
EMPLOYMENT STANDARDS ADMINISTRATION  
WAGE AND HOUR DIVISION  
WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
THE SERVICE CONTRACT ACT  
By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date: APR 1 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments
---------------------------	---------------------	-------------------------

Employed on contracts for commercial drilling, coring operations, and exploratory test hole drilling services in the above locality:

1. Driller tenders (laborers)

Zone 1	\$12.84	\$4.75
Zone 2	13.49	4.75
Zone 3	13.99	4.75
Zone 4	14.54	4.75
Zone 5	15.59	4.75

2 Drill Doctor; Drill Operator, Air tracks, Cat drill, Wagon drills, Rubber-mounted drills and other similar types; strippers and Drillers (covers work in swinging stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring down, or sloping to move, set up, align laser beam.

Zone 1	\$13.49	4.75
Zone 2	14.14	4.75
Zone 3	14.64	4.75
Zone 4	15.19	4.75
Zone 5	16.24	4.75

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U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
 WAGE AND HOUR DIVISION  
 WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
 THE SERVICE CONTRACT ACT  
 By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	

Wage determination number: 79-283 (Rev. 5)

Date: APR 11 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments

3. Driller tender (power equipment operator)

Zone 1	\$15.18	\$4.70
Zone 2	15.83	4.70
Zone 3	16.33	4.70
Zone 4	16.88	4.70
Zone 5	17.93	4.70

4. Churn drill and Earth Boring machine

Zone 1	\$15.74	4.70
Zone 2	16.39	4.70
Zone 3	16.89	4.70
Zone 4	17.44	4.70
Zone 5	18.49	4.70

5. Bulldozer; Drill Cat operator; Drill Doctor; Drill Doctor (bit grinder)

Zone 1	\$15.96	4.70
Zone 2	16.61	4.70
Zone 3	17.11	4.70
Zone 4	17.66	4.70
Zone 5	18.71	4.70

U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION Page 3 of 9  
 WAGE AND HOUR DIVISION  
 WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
 THE SERVICE CONTRACT ACT  
 By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date: APR 11 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments

6. Bulldozer, twin engine (TC 12 and similar);  
 Driller - Percussion, Diamond, Core, Cable,  
 Rotary and similar type.

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Zone 1	\$16.04	\$4.70
Zone 2	16.69	4.70
Zone 3	17.19	4.70
Zone 4	17.74	4.70
Zone 5	18.79	4.70

7 Tandem Bulldozer, Quad - Nine and similar.

Zone 1	\$16.91	4.70
Zone 2	17.56	4.70
Zone 3	18.06	4.70
Zone 4	18.16	4.70
Zone 5	19.66	4.70

U.S. DEPARTMENT OF LABOR  
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 WAGE AND HOUR DIVISION  
 WASHINGTON, D.C. 20210

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*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date APR 11 1984
Class of service employee	Minimum hourly wage	Fringe benefit payments

8. Dump trucks, side, end and bottom dumps, including Semi-trucks and trains or combinations thereof; 6 cu yds. and under; Solo Flat Bed and misc. Body trucks, 0-10 tons.

Zone 1	\$14.69	\$4.19
Zone 2	15.34	4.19
Zone 3	15.84	4.19
Zone 4	16.39	4.19
Zone 5	17.44	4.19

9. "A" Frame or Hydra - lift truck with load bearing surface

Zone 1	\$14.74	4.19
Zone 2	15.39	4.19
Zone 3	15.89	4.19
Zone 4	16.44	4.19
Zone 5	17.45	4.19

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W. M. Otter

Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date: APR 11 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments

10. Dump trucks, side, end and bottom dump, including Semi-trucks and Trains or combinations thereof: over 6 cu. yds. and including 10 cu yds.

Zone 1	\$14.79	\$4.19
Zone 2	15.44	4.19
Zone 3	15.94	4.19
Zone 4	16.49	4.19
Zone 5	17.54	4.19

11. Low bed Equipment, Flat bed Semi-trailer, truck and trailers of doubles transporting equipment or wet or dry materials.

Zone 1	\$14.84	4.19
Zone 2	15.49	4.19
Zone 3	15.99	4.19
Zone 4	16.54	4.19
Zone 5	17.59	4.19

U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
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 WASHINGTON, D.C. 20210

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*W. M. Otter*  
 W. M. Otter Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date: APR 11 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments

12. Dump trucks, side, end and bottom dumps, including Semi-trucks and trains or combinations thereof; over 10 cu.yds. and including 20 cu. yds.

Zone 1	\$14.99	\$4.19
Zone 2	15.64	4.19
Zone 3	16.14	4.19
Zone 4	16.69	4.19
Zone 5	17.74	4.19

U.S. DEPARTMENT OF LABOR  
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W. M. Otter

Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date: APR 1 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments			
		Health & Welfare	Vacation	Holiday	Other

\*Zone Definitions

CITIES

Astoria	Hood River	Newport	Tillamook
Baker	Klamath Falls	Ontario	Vancouver
Bend	La Grande	Pendleton	
Brookings	Lakeview	Port Orford	
Burns	Longview	Reedport	
Coos Bay	Madras	Roseburg	
Goldendale	Medford	The Dalles	
Grants Pass	McMinnville		

Zone 1 - All jobs or projects located within 10 miles of the respective City Hall

Zone 2 - More than 10 miles but less than 25 miles from the respective City Hall

Zone 3 - More than 25 miles but less than 35 miles from the respective City Hall

Zone 4 - More than 35 miles but less than 45 miles from the respective City Hall

Zone 5 - More than 45 miles but less than 75 miles from the respective City Hall

U.S. DEPARTMENT OF LABOR  
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 WASHINGTON, D.C. 20210

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*W. M. Otter*  
 W. M. Otter Administrator

LOCALITY	State: OREGON	OR
	Area: Statewide	
Wage determination number: 79-283 (Rev. 5)		Date: APR 11 1984

Class of service employee	Minimum hourly wage	Fringe benefit payments			
		Health & Welfare	Vacation	Holiday	Other

\*Zone definitions continued

Albany and Corvallis Only

- Zone 1 - All jobs or projects located within 5 miles of the respective City Hall
- Zone 2 - More than 5 miles but less than 25 miles from the respective City Hall
- Zone 3 - More than 25 miles but less than 35 miles from the respective City Hall
- Zone 4 - More than 35 miles but less than 45 miles from the respective City Hall
- Zone 5 - More than 45 miles but less than 75 miles from the respective

Portland Only

- Zone 1 - All jobs or projects located within 25 miles of the City Hall of Portland
- Zone 3 - More than 25 miles but less than 35 miles from City Hall
- Zone 4 - More than 35 miles but less than 45 miles from City Hall
- Zone 5 - More than 45 miles but less than 75 miles from City Hall

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U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
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REGISTER OF WAGE DETERMINATIONS UNDER  
 THE SERVICE CONTRACT ACT  
 By direction of the Secretary of Labor

LOCALITY	State: OREGON	OR			
	Area: Statewide				
Wage determination number: 79-283 (Rev. 5)		Date: APR 11 1984			
Class of service employee	Minimum hourly wage	Fringe benefit payments			
		Health & Welfare	Vacation	Holiday	Other

W. M. Otter  
 Administrator

\*Zone definitions continued

Eugene and Salem Only

- Zone 1 - All jobs or projects located within 20 miles of the respective City Hall
- Zone 2 - More than 20 miles but less than 25 miles from the respective City Hall
- Zone 3 - More than 25 miles but less than 35 miles from the respective City Hall
- Zone 4 - More than 35 miles but less than 45 miles from the respective City Hall
- Zone 5 - More than 45 miles but less than 75 miles from the respective City Hall

U.S. DEPARTMENT OF LABOR  
EMPLOYMENT STANDARDS ADMINISTRATION  
WAGE AND HOUR DIVISION  
WASHINGTON, D.C. 20210

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REGISTER OF WAGE DETERMINATIONS UNDER  
THE SERVICE CONTRACT ACT  
By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: <u>California</u>	CA
	Area: <u>Southern California Counties (excluding San Diego County)</u>	<u>1/</u>
Wage determination number: <u>78-1111 (Rev. 4)</u>		<u>FEB 15 1984</u>
Class of service employee	Minimum hourly wage	Fringe benefit payments

Employed on contracts for drilling, core sampling  
and foundation exploration:

## 1. General Laborer

Area 1	\$14.82	\$7.78
Area 2	12.82	7.78

## 2. Driller; All power drills, whether Core, Diamond, Wagon, Track, Multiple Unit, and any and all types of mechanical drills

Area 1	15.67	7.78
Area 2	13.67	7.78

## 3. Drivers of vehicle or combinations of vehicles of 2 axles (including all vehicles less than 6 tons)

	17.11	4.95
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 WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
 THE SERVICE CONTRACT ACT  
 By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: <u>California</u>	CA
	Area: <u>Southern California Counties (excluding San Diego County)</u>	I/
Wage determination number: <u>78-1111 (Rev. 4)</u>		Date: <u>FEB 15 1984</u>

Class of service employee	Minimum hourly wage	Fringe benefit payments

4. Drivers of vehicles or combinations of vehicles of 3 axles	\$17.26	\$4.95
5. Drivers of vehicle or combination of vehicles of 4 or more axles	17.51	4.95
6. Low Bed Driver, 9 axle or over	18.26	4.95

Area Description (Laborers and Drillers):

Area 2: Remainder of Counties

Area 1: Point Arguello, Camp Roberts, Edwards Air Force Base, Naval Ordnance Test Center, Vandenberg Air Force Base

U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
 WAGE AND HOUR DIVISION  
 WASHINGTON, D.C. 20210

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LOCALITY	State: <u>California</u>	CA
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Wage determination number: <u>78-1111 (Rev. 4)</u>		Date: <u>FEB 15 1984</u>
Class of service employee	Minimum hourly wage	Fringe benefit payments

1/ Southern California Counties

1. Imperial (025)
2. Inyo (027)
3. Kern (029)
4. Los Angeles (037)
5. Mono (051)
6. Orange (059)
7. Riverside (065)
8. San Bernardino (071)
9. San Luis Obispo (079)
10. Santa Barbara (083)
11. Ventura (111)

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Administrator

LOCALITY	State: CALIFORNIA	CA
	Area: Northern California Counties <u>1/</u>	
Wage determination number: 81-212 (Rev. 3)		Date: MAR 8 1983

Class of service employee	Minimum hourly wage	Fringe benefit payments	
Employed on contracts for drilling, core sampling and foundation exploration			
1. Laborers, general	\$15.11	\$5.11	
2. Truckdrivers: Pickups	14.20	5.39	
3. Truckdrivers: Single unit flat rock	14.30	5.39	
4. Driller			
Area 1	16.13	8.75	
Area 2	18.13	8.75	

1/ Northern California Counties:

- |                  |                       |                    |                  |
|------------------|-----------------------|--------------------|------------------|
| 1. Alameda (001) | 5. Calaveras (009)    | 9. El Dorado (017) | 13. Kings (031)  |
| 2. Alpine (003)  | 6. Colusa (011)       | 10. Fresno (019)   | 14. Lake (033)   |
| 3. Amador (005)  | 7. Contra Costa (013) | 11. Glenn (021)    | 15. Lassen (035) |
| 4. Butte (007)   | 8. Del Norte (015)    | 12. Humboldt (023) | 16. Madera (039) |

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 THE SERVICE CONTRACT ACT  
 By direction of the Secretary of Labor

*W. M. Otter*

W. M. Otter

Administrator

LOCALITY	State: <u>California</u>	CA
	Area: <u>Northern California Counties 1/</u>	
Wage determination number: <u>81-212 (Rev. 3)</u>		Date <u>MAR 8 1983</u>
Class of service employee	Minimum hourly wage	Fringe benefit payments

- |                         |                      |
|-------------------------|----------------------|
| 17. Marin (041)         | 36. Siskiyou (093)   |
| 18. Mariposa (043)      | 37. Solano (095)     |
| 19. Mendocino (045)     | 38. Sonoma (097)     |
| 20. Merced (047)        | 39. Stanislaus (099) |
| 21. Modoc (049)         | 40. Sutter (101)     |
| 22. Monterey (053)      | 41. Tehama (103)     |
| 23. Napa (055)          | 42. Trinity (105)    |
| 24. Nevada (057)        | 43. Tulare (107)     |
| 25. Placer (061)        | 44. Tuolumne (109)   |
| 26. Plumas (063)        | 45. Yolo (113)       |
| 27. Sacramento (067)    | 46. Yuba (115)       |
| 28. San Benito (069)    |                      |
| 29. San Francisco (075) |                      |
| 30. San Joaquin (077)   |                      |
| 31. San Mateo (081)     |                      |
| 32. Santa Clara (085)   |                      |
| 33. Santa Cruz (087)    |                      |
| 34. Shasta (089)        |                      |
| 35. Sierra (091)        |                      |

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## AREAS I and II

••AREA I: All areas included in the description defined below which is based upon Township and Range Lines of Areas I and II.

Commencing in the Pacific Ocean on the extension of the Southerly line of Township 19S.

Thence Easterly along the Southerly line of Township 19S, crossing the Mt. Diablo Meridian to the S.W. corner of township 19S, range 6E, Mt. Diablo Base Line and Meridian,  
 Thence Southerly to the S.W. corner of township 20S, range 6E,  
 Thence Easterly to the S.W. corner of township 20S, range 13E,  
 Thence Southerly to the S.W. corner of township 21S, range 13E,  
 Thence Easterly to the S.W. corner of township 21S, range 17E,  
 Thence Southerly to the S.W. corner of township 22S, range 17E,  
 Thence Easterly to the S.E. corner of township 22S, range 17E,  
 Thence Southerly to the S.W. corner of township 23S, range 18E,  
 Thence Easterly to the S.E. corner of township 23S, range 18E,  
 Thence Southerly to the S.W. corner of township 24S, range 19E, falling on the Southerly Line of Kings County, thence Easterly along the Southerly Boundary of Kings County and the Southerly Boundary of Tulare County, to the S.E. corner of township 24S, range 29E,  
 Thence Northerly to the N.E. corner of township 21S, range 29E,  
 Thence Westerly to the N.W. corner of township 21S, range 29E,  
 Thence Northerly to the N.E. corner of township 13S, range 28E,  
 Thence Westerly to the N.W. corner of township 13S, range 28E,  
 Thence Northerly to the N.E. corner of township 11S, range 27E,  
 Thence Westerly to the N.W. corner of township 11S, range 27E,  
 Thence Northerly to the N.E. corner of township 10S, range 26E,  
 Thence Westerly to the N.W. corner of township 10S, range 26E,  
 Thence Northerly to the N.E. corner of township 9S, range 25E,  
 Thence Westerly to the N.W. corner of township 9S, range 25E,  
 Thence Northerly to the N.E. corner of township 8S, range 24E,  
 Thence Westerly to the N.W. corner of township 8S, range 24E,  
 Thence Northerly to the N.E. corner of township 6S, range 23E,  
 Thence Westerly to the S.E. corner of township 5S, range 19E,  
 Thence Northerly to the S.E. corner of township 5S, range 19E,  
 Thence Westerly to the N.W. corner of township 5S, range 19E,  
 Thence Northerly to the N.E. corner of township 3S, range 18E,  
 Thence Westerly to the N.W. corner of township 3S, range 18E,  
 Thence Northerly to the N.E. corner of township 2S, range 17E,  
 Thence Westerly to the N.W. corner of township 2S, range 17E,

## AREA I and II

## AREA I: (Cont'd)

Thence Northerly crossing the Mt. Diablo Baseline to the N.E. corner of township 2N, range 16E,  
 Thence Westerly to the N.W. corner of township 2N, range 16E,  
 Thence Northerly to the N.E. corner of township 3N, range 15E,  
 Thence Westerly to the N.E. corner of township 3N, range 15E,  
 Thence Northerly to the N.E. corner of township 4N, range 14E,  
 Thence Westerly to the N.W. corner of township 4N, range 14E,  
 Thence Northerly to the N.E. corner of township 5N, range 13E,  
 Thence Westerly to the N.E. corner of township 5N, range 13E,  
 Thence Northerly to the N.E. corner of township 10N, range 12E,  
 Thence Easterly to the S.E. corner of township 11N, range 14E,  
 Thence Northerly to the N.E. corner of township 11N, range 14E,  
 Thence Westerly to the N.E. corner of township 11N, range 10E,  
 Thence Northerly to the N.E. corner of township 15N, range 10E,  
 Thence Easterly to the S.E. corner of township 16N, range 11E,  
 Thence Northerly to the N.E. corner of township 16N, range 11E,  
 Thence Easterly to the S.E. corner of township 17N, range 14E,  
 Thence Southerly to the S.W. corner of township 14N, range 14E,  
 Thence Easterly to the S.E. corner of township 14N, range 15E,  
 Thence Southerly to the S.W. corner of township 13N, range 16E,  
 Thence Easterly to the S.E. corner of township 13N, range 16E,  
 Thence Southerly to the S.W. corner of township 12N, range 17E,  
 Thence Easterly along the Southern Line to township 12N to the Eastern Boundary of the State of California;  
 to the State of California to the N.E. corner of township 17N, range 18E,  
 Thence Westerly to the N.W. corner of township 17N, range 11E,  
 Thence Northerly to the N.E. corner of township 20N, range 10E,  
 Thence Westerly to the N.W. corner of township 20N, range 20E,  
 Thence Northerly to the N.E. corner of township 21N, range 9E,  
 Thence Westerly to the N.W. corner of township 21N, range 9E,  
 Thence Northerly to the N.E. corner of township 22N, range 8E,  
 Thence Westerly to the N.W. corner of township 27N, range 8E,  
 Thence Northerly to the S.W. corner of township 27N, range 8E,  
 Thence Easterly to the S.E. corner of township 27N, range 8E,  
 Thence Northerly to the N.E. corner of township 28N, range 8E,  
 Thence Westerly to the N.W. corner of township 28N, range 7E,  
 Thence Northerly to the N.E. corner of township 30N, range 6E,  
 Thence Westerly to the N.W. corner of township 30N, range 1E,  
 Thence Northerly along the Mt. Diablo Meridian to the N.E. corner of township 34N, range 1W,  
 Thence Westerly to the N.W. corner of township 34N, range 6W,  
 Thence Southerly to the N.E. corner of township 32N, range 7W,  
 Thence Westerly to the N.W. corner of township 32N, range 7W,  
 Thence Southerly to the S.W. corner of township 30N, range 7W,  
 Thence Easterly to the S.E. corner of township 30N, range 7W,



## AREAS I and II

## AREA 1: (Cont'd)

Thence Southerly to the S.W. corner of township 16N, range 6W,  
 Thence Easterly to the S.E. corner of township 16N, range 6W,  
 Thence Southerly to the S.W. corner of township 14N, range 5W,  
 Thence Westerly to the S.E. corner of township 14N, range 7W,  
 Thence Northerly to the N.E. corner of township 14N, range 7W,  
 Thence Westerly to the N.W. corner of township 14N, range 7W,  
 Thence Northerly to the N.E. corner of township 15N, range 8W,  
 Thence Westerly to the S.E. corner of township 16N, range 12W,  
 Thence Northerly to the N.E. corner of township 16N, range 12W,  
 Thence Westerly to the N.W. corner of township 16N, range 12W,  
 Thence Northerly to the N.E. corner of township 18N, range 12W,  
 Thence Westerly to the N.W. corner of township 18N, range 14W,  
 Thence Southerly to the S.W. corner of township 18N, range 14W,  
 Thence Easterly to the S.E. corner of township 18N, range 14W,  
 Thence Southerly to the S.W. corner of township 16N, range 13W,  
 Thence Westerly to the N.W. corner of township 15N, range 14W,  
 Thence Southerly to the S.W. corner of township 14N, range 14W,  
 Thence Easterly to the S.E. corner of township 14N, range 14W,  
 Thence Southerly to the S.W. corner of township 13N, range 13W,  
 Thence Easterly to the S.E. corner of township 13N, range 13W,  
 Thence Southerly to the S.W. corner of township 11N, range 12W,  
 Thence Easterly to the S.E. corner of township 11N, range 12W,  
 Thence Southerly along the Eastern line to range 12W, to the  
 Pacific Ocean excluding that portion of Northern California  
 within Santa Clara County included within the following line:  
 Commencing at the N.W. corner of township 6S, range 3E,  
 Mt. Diablo Baseline and Meridian:  
 Thence in a Southerly direction to the S.W. corner of township  
 7S, range 3E,  
 Thence in a Easterly direction to the S.E. corner of township  
 7S, range 4E,  
 Thence in a Northerly direction to the N.E. corner of township  
 6S, range 4E,  
 Thence in a Westerly direction to the N.W. corner of township  
 6S, range 3E, to the point of beginning which portion is a  
 part of Area 2.

AREA 1: also includes that portion of Northern California  
 within the following lines:

Commencing in the Pacific Ocean on an extension of the  
 Southerly line to township 2N; Humboldt Baseline and  
 Meridian:

Thence Easterly along the Southerly line of township 2N,  
 to the S.W. corner of township 2N, range 1W,  
 Thence Southerly to the S.W. corner of township 1N, range 1W,

## AREA 1: (Cont'd)

Thence Easterly along the Humboldt Baseline to the S.W. corner of township 1N, range 2E,  
 Thence Southerly to the S.W. corner of township 2S, range 2E,  
 Thence Easterly to the S.E. corner of township 2S, range 2E,  
 Thence Southerly to the S.W. corner of township 4S, range 3E,  
 Thence Easterly to the S.E. corner of township 4S, range 3E,  
 Thence Northerly to the N.E. corner of township 2S, range 3E,  
 Thence Westerly to the N.W. corner of township 2S, range 3E,  
 Thence Northerly crossing the Humboldt Baseline to the S.W. corner of township 1N, range 3E,  
 Thence Easterly along the Humboldt Baseline to the S.E. corner of township 1N, range 3E,  
 Thence Northerly to the N.E. corner of township 9N, range 3E,  
 Thence Westerly to the N.W. corner of township 9N, range 2E,  
 Thence Northerly to the N.E. corner of township 10N, range 1E,  
 Thence Westerly along the Northerly line to township 10N, into the Pacific Ocean.

AREA I; Also includes that portion of Northern California included within the following lines:

Commencing at the Northerly boundary of the State of California at the N.W. corner of township 48N, range 7W, Mt. Diablo Baseline and Meridian:

Thence Southerly to the S.W. corner of township 44N, range 7W,  
 Thence Easterly to the S.E. corner of township 44N, range 7W,  
 Thence Southerly to the S.W. corner of township 43N, range 6W,  
 Thence Easterly to the S.E. corner of township 43N, range 5W,  
 Thence Northerly to the N.E. corner of township 48N, range 5W,  
 on the Northerly boundary of the State of California,  
 Thence Westerly along the Northerly boundary of the State of California to the point of beginning.

AREA II: All areas not included within AREA I as defined.

ENVIRONMENTAL GUIDELINES

INTRODUCTION

In accordance with the National Environmental Policy Act (NEPA), and the National Historic Preservation Act of 1966, all federal actions which may have a significant effect on the environment require some environmental analysis to be performed. Each Participant under this program will be required to prepare an Environmental Evaluation assessing the potential environmental impacts of the development of the geothermal resource. DOE, in turn, must ensure that the project is environmentally acceptable.

GENERIC ENVIRONMENTAL REPORT

DOE will provide a generic environmental report to the Participant for information. The objective of this report is to simplify the procedures that the Participant will have to follow in preparing an Environmental Evaluation. The generic report will address:

- a) the types of drilling normally used to develop a geothermal resource;
- b) the primary uses of geothermal resources;
- c) the potential impacts resulting from drilling, testing, and the use of the resource;
- d) reasonable alternatives to the program;
- e) typical environmental monitoring programs; and
- f) regulatory requirements.

The Participant will be required to address only the "site-specific" information relating to the project.

GLOSSARY OF TERMS

Agency - A Federal, state, or local governmental unit.

Artesian Flow - When the artesian pressured formation water is great enough to allow flow at the ground surface.

Contracting Officer - The DOE employee empowered to commit the Government to a legally enforceable agreement.

Consultant Agreement - A subcontract between the Participant and a third party for consulting services within the scope of the Cooperative Agreement.

Cost-Share - In to be considered cost-sharing, a cost must be incurred during the term of the Cooperative Agreement as well as being determined "allowable". Allowable costs are determined in accordance with the cost principles for the type of organization (OMB Circular A-87 for State and Local Governments and for Indian tribes; OMB Circular A-21 for Institution of Higher Education; OMB Circular A-122 for Non-Profit Organization; and Federal Acquisition Regulations Subpart 31.2 for Commercial Organizations).

Cost-Share Plan - A plan by which DOE and a successful proposer will divide the allowable costs incurred for the thermal gradient drilling project.

Daily Drilling Report - A daily record kept on a standard form for the drilling industry on which is recorded an accurate record of hole conditions, materials used, work performed, and the time required for all work to the nearest quarter hour.

Drill Cuttings - Rock chip samples brought to the surface with the drilling fluid.

Drilling Consultant - A person with expertise in the field of drilling (geothermal) wells, who is capable of providing technical advice to the Participant.

Environmental Assessment - A document prepared by the Department of Energy which assesses whether a proposed action is a "major Federal action significantly affecting the quality of the human environment," and which serves as the basis for a determination as to whether an environmental impact statement is required.

Environmental Evaluation - Environmental documentation of an activity which meets initial requirements and serves as a basis for more formal or final environmental documentation.

Fluid Disposal - The removal of hydrothermal fluids produced from the well for purposes of well tests and drilling.

Historical & Archaeological Clearances - Federal regulations require historical/ archaeological clearances be obtained prior to disturbance of federal lands. Most states have regulations requiring protection of historical/archaeological resources. Information on these resources at a specific site can be obtained by contacting the state historical or archaeological officer, Historical Society, or local university.

Hole Completion and Maintenance - All procedures and equipment for well casing liners, and wellhead equipment to meet DOE's requirements for hole access for an extended period of time.

Hole Testing - Data collection under preplanned, controlled well conditions to determine borehole, fluid and reservoir conditions.

Hydrologic Head - The static formation water level within the wellbore measured in terms of pressure.

Hydrology - The study of ground and surface waters, their chemical and physical properties, location, flow and geologic environment.

Hydrothermal - Of or pertaining to hot water.

Institutional (Requirements) - Pertaining to societal or regulatory considerations that effect the leasing/land ownership, the mineral/water/geothermal rights, the permitting, the licensing and other approval of projects.

Lithology - The physical character of a rock; generally determined megascopically or with the aid of a low-power magnifier.

Logs - Geophysical borehole logs used to interpret lithology, porosity, wellbore temperatures, fluid conductivity and resistivity, radioactivity and other physical and chemical characteristics of the rocks and fluids adjacent to the wellbore.

Lost Circulation - Loss of drilling fluid to the formations.

Milestone - A significant event in the course of a project, usually characterized by the completion of a phase or decision.

Participant - The party other than DOE who is signatory to a Cooperative Agreement.

Preproposal Conference - A meeting held prior to proposal preparation in order to orient potential proposers concerning the project, schedules, etc.

Program Manager - DOE, Washington, DC, individual who has overall program responsibility.

Project Manager - DOE, Idaho Operations Office, individual who has specific responsibility for the project.

Proposer - The group or person responsible for the preparation of a response to the Solicitation for Cooperative Agreement.

Rain Curtain - The overlying cold ground-water system that masks and suppresses surface evidence of the underlying hydrothermal system.

Site Preparation - Well site construction necessary for drilling a well, which includes access roads, drill pad, reserve pits, support power and water, cellar and conductor pipe setting.

Source Evaluation Panel (SEP) - Panel designated to issue solicitation, evaluate proposals, and present findings of the evaluation to the SS0.

Source Selection Official (SSO) - Individual designated to make the selection of proposer for negotiations.

Subcontract/Subcontractor - An agreement between the Participant and a third party for work within the statement of work of the Cooperative Agreement.

Test Data - That data collected during hole testing.

SECTION K

INSTRUCTIONS FOR REPRESENTATION AND CERTIFICATIONS

Parts I and II should be completed by the proposer.

The proposer should complete the following in Part III:

DEAR 952.209-70 ORGANIZATIONAL CONFLICTS OF INTEREST DISCLOSURE OR REPRESENTATION (APR 1984).

FAR 52.230-2 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (NONDEFENSE) (APR 1984).

DEAR 952.227-80 TECHNICAL DATA CERTIFICATION

DEAR 952.227-81 ROYALTY PAYMENTS CERTIFICATION

U.S. Department of Energy  
Idaho Operations Office  
550 Second Street  
Idaho Falls, Idaho 83401

OFFICIAL BUSINESS  
Attn: E.M. Hyster

# PRIORITY

POSTAGE AND FEES PAID  
DEPARTMENT OF ENERGY  
DOE 350







## Department of Energy

Idaho Operations Office  
550 Second Street  
Idaho Falls, Idaho 83401  
March 25, 1985

SUBJECT: Amendment No. 1 - Solicitation for Cooperative Agreement Proposals  
(SCAP) No. DE-SC07-85ID12580 for Cascades Deep Thermal Gradient  
Drilling

Prospective Proposers:

This Amendment No. 1 consists of the mailing list for the subject SCAP.

Sincerely,

A handwritten signature in cursive script that reads "Twila A. Hart".

Twila A. Hart  
Contracting Officer  
R&D Contracts Branch  
Contracts Management Division

## Source List

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Getty Oil Company  
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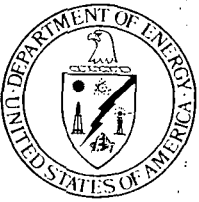
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## Department of Energy

Idaho Operations Office  
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April 12, 1985

### Prospective Proposers:

**SUBJECT:** Amendment No. 2 - Solicitation for Cooperative Agreement Proposals (SCAP) No. DE-SC07-85ID12580 for Cascades Deep Thermal Gradient Drilling

This Amendment No. 2 consists of the following:

- A. On page 34, add Article XI - LIABILITIES to read as follows:

#### ARTICLE XI - LIABILITIES

DOE shall not be liable for damages to persons or property incurred by the Participant or its subcontractors in the performance of work under this Agreement. The Participant shall maintain financial coverage for potential liability as agreed upon by the Participant and the Contracting Officer.

- B. On page 23, the last sentence under Subtask 4.2A - change the reference "4.3B" to read "4.2B."
- C. On page 24, under Fluid Sampling, the first bullet is changed to read as follows:

At the start of daily drilling, or whenever the drilling operation will allow, measurements of the hydraulic head.

- D. On page 24, under Geophysical Well Logging, the paragraph is changed to read as follows:

Geophysical Well Logging - Logs which provide temperature, porosity, and lithologic parameters. All logs will cover the entire interval of the hole from the bottom of conductor casing to total depth and will be performed prior to further casing of the hole.

- E. The relative values of the Evaluation Criteria and Subcriteria are approximate in all cases. Therefore, on page 5, the second paragraph is changed to read as follows:

Volume I Criteria (Criteria 1, 2, and 3) are weighted approximately 4 times the weight of Volume II Criteria (Criterion 4). Criterion 1 is weighted approximately 2/5 more than Criterion 2. Criterion 2 is weighted approximately



1. Introduction
  2. Description of the Proposed Action
  3. Description of the Existing Environment
  4. Potential Environmental Effects
  5. Environmental Measurements and Monitoring
  6. Environmental Regulations and Standards
  7. Alternatives
- I. On page 196, the first sentence is changed to read as follows:  
Parts I and II should be completed by the proposer except for FAR 52.225-1 BUY AMERICAN CERTIFICATE.
- J. On page 2 of the transmittal letter, the sixth paragraph sentence which reads "Only those returning the attached form and indicating that a proposal will be submitted will be provided copies of any amendments to the SCAP." is deleted and replaced with the following:  
Copies of all amendments to this solicitation will be sent to those persons sent the original solicitation and all attendees at the preproposal conference.
- K. Attachment No. 1 - List of Preproposal Conference Attendees
- L. Attachment No. 2 - List of Questions and Answers

Sincerely,



Twila A. Hart  
Contracting Officer  
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ATTACHMENT NO. 1

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ATTACHMENT NO. 2

QUESTIONS AND ANSWERS

1. Question: Under Criterion 2, Technical Planning -- What is the difference between Subcriterion a. "The quantity, quality, and type of data to be gathered during the project" and Subcriterion c. "The content, adequacy, and completeness of drilling and data collection plans?"

Answer: Under Subcriterion a. the data proposed to be collected will be evaluated against the minimum data collection requirements of the Statement of Work. More value may be given for quality data proposed to be collected above the minimum required. Under Subcriterion c. the proposed drilling and data collection plans will be evaluated as to the detail provided, and methods proposed to complete the work.

2. Question: Under Criterion 4, is it necessary to send in copies of the three most recent years' financial statements or may they be referenced if they have already been sent to another Government organization?

Answer: Copies of the three most recent years' financial statements should be included in the proposal. Without such information a less favorable evaluation on this criterion may result. Mere reference to such documents, even if they have been provided to other Government organizations, including other DOE organizations, is not adequate.

3. Question: If I have a strong reason for not following an instruction, or not meeting a stipulation, will my proposal be disqualified?

Answer: If your proposal does not meet the Qualification Criteria (Section B), your proposal will not be evaluated. If your proposal does meet the Qualification Criteria (Section B), but does not respond fully to the Evaluation Criteria (Section C), your proposal will be evaluated. However, failure to provide the information requested to satisfy the Evaluation Criteria (Section C) may result in a less favorable evaluation.

4. Question: Under Criterion 1, Resource Potential and Criterion 4, Institutional Considerations -- What kind of map is desired to locate the proposed hole?

Answer: Any topographical or similar map with Township and Range identifiers and the drill site location clearly marked is acceptable. Roadways and right of ways should also be shown on the map.

5. Question: In general, how does DOE safeguard proprietary data or that information which the proposer does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation?

Answer: First, as the solicitation instructions indicate on page 8, each proposer should clearly mark each portion of data in its proposal which it does not want disclosed. Each page should be specifically identified, including each line or paragraph containing the data to be protected. In addition, the cover sheet of the proposal should be marked with the appropriate notice and the notice should be referred to on each page to which the notice applies.

Second, DOE does provide specific safeguards to protect proposal data. Each of the Source Evaluation Panel members, who are all DOE employees, and each of the Technical Advisory Committee members, who include experts from federal and state governments as well as from universities and private nonprofit organizations, who will have access to your proposals for evaluation purposes all sign statements of confidentiality that he or she will not divulge information about the proposal to anyone not involved in the solicitation process. In addition, members of the Panel and the Technical Advisory Committee also sign statements of conflicts of interest identifying real, apparent or potential conflicts of interest. If such conflicts exist, then the person is removed from the evaluation and solicitation process but is not relieved from the promise of confidentiality. When the proposals are not being evaluated, they are placed in a locked cabinet.

Under this particular solicitation, a proposer may refuse consent to evaluation by nongovernmental personnel, but is advised that DOE may be unable to give full consideration to a proposal submitted without such consent.

If a Freedom Of Information Act request for information is submitted to DOE, it is handled under the Freedom Of Information Act requirements. If the information requested is in a proposal, based on the determination of what is information not to be disclosed in the proposal under the appropriate exemptions of the Freedom of Information Act,

such information is not released. Such information includes technical data and other data such as trade secrets and/or privileged or confidential commercial or financial information which the proposer has marked and does not want disclosed to the public or used by the Government for any purposes other than proposal evaluation. Such data so marked will not be disclosed or used for any other purpose except to the extent provided in any resulting award or to the extent required by law. The Government shall not be liable for disclosure or use of unmarked data and may use or disclose unmarked data for any purpose.

6. Question: My subcontractor(s) will not be known at the time proposals are due. Will the lack of this information result in a less favorable evaluation of my proposal?

Answer: Not necessarily. Identified subcontractors will be evaluated under Criterion 3 for experience and qualifications. The method of selecting unidentified subcontractors proposed as part of the project management plan will also be evaluated under Criterion 3. DOE's intent is to have experienced and qualified personnel on this project.

7. Question: Although each hole requires a separate proposal, can I refer in one proposal to the hole proposed in another, if I give reasons why the two would be complementary?

Answer: You may make reference in one proposal to the hole proposed in another proposal. However, each proposal must stand on its own. That is, all information pertaining to a specific proposal must be contained in that proposal.

8. Question: Will a proposal to drill a very deep hole be evaluated alongside a proposal for a much shallower hole?

Answer: Yes.

9. Question: Can several alternate drill sites be submitted for a specific prospect area in the proposal with the understanding that only one mutually agreed upon (DOE and proposer) drill site will be drilled?

Answer: No. A proposer may propose more than one site; however, a separate proposal must be submitted for each site. (See page 9 of the solicitation.)

10. Question: Why did DOE introduce the "only one hole per response" concept?
- Answer: The results of the evaluation may change with each different hole location. Therefore, in order to effectively and fairly evaluate each proposal one specific location must be identified for each proposal.
11. Question: Is continuous core acceptable to DOE in lieu of drill cuttings?
- Answer: Yes. (See pages 11 and 24 of the solicitation.)
12. Question: What is the duration of the confidentiality status to be afforded specifically identified proprietary data submitted in the proposal?
- Answer: There is no limit to the duration of the confidentiality status afforded properly marked proprietary data submitted in the proposal. (See Answer to Question 5 of this Amendment.)
13. Question: I am representing a group which is considering a proposal to drill a 4,000 foot thermal gradient hole in a deep glacial valley in the Cascades. It is possible that this well may hit temperatures or pressures which could mandate discontinuing the hole before reaching 3,000 feet. The SCAP, page 1, states: "The proposed hole must be a minimum of 3,000 feet deep." Does this mean that the planned depth must be a minimum of 3,000 feet, or the hole will actually have to be drilled to at least 3,000 feet to qualify for DOE funding?
- Answer: To meet qualification criteria, the proposed hole must be a minimum of 3,000 ft. If, in fact, problems are encountered such as temperature or pressure which could mandate discontinuing the hole before reaching 3,000 ft., the hole will qualify for DOE funding.
14. Question: The well we are considering is planned to have 20 feet of conductor casing, 400 feet of surface casing, and 3,000 feet of casing for H wireline core. The interval from 3,000 feet to 4,000 feet would be core drilled, leaving a 3 25/32 inch



open hole. In reference to geophysical well logging, the SCAP, page 24, states: "All logs will cover the entire interval of the hole from surface to total depth and will be performed prior to casing the hole." Obviously, one does not call out a logging crew prior to setting the conductor pipe, nor is it customary to log the open hole for the surface casing. In our planned hole, the cost effectiveness of the value of open hole logging prior to running the 3,000 feet of casing is questionable. My question is can we wait to do the geophysical logging until we reach the total depth?

Answer: It is DOE's intent under this solicitation to obtain data, a primary part of that data is geophysical logs. You are correct that logging prior to conductor casing is not standard practice, the solicitation has been revised accordingly. (See Item D. of this Amendment No. 2.) However, prudent drilling practice does require that certain well logs be run prior to setting other casing; for example, caliper and temperature logs. Therefore, DOE does require the geophysical logs described in the solicitation to be run below conductor pipe. These logs are open hole logs and cannot be run after casing has been set.

15. Question: Our proposed well would have 1,000 feet of core from 3,000 to 4,000 feet if drilled as planned. This core would reveal directly the fracturing, porosity, permeability, rock type, mineralization and density. Data on these items can only be assumed from electric logging. Temperature measurements will of course need down-hole logging. Will DOE require geophysical hole logging, other than temperature, when continuous core is available? The geophysical logs listed on page 24 of the SCAP are very sophisticated and would cost \$30,000 to \$50,000. While these are quite valuable in the pancake geology of the oil patch, their worth is very questionable in volcanic terrains.

Answer: Yes. DOE will require geophysical hole logging other than temperature when continuous core is available. It is true the geophysical logs required by the solicitation are standard to sedimentary environments. However, DOE also recognizes that these well logs, run under good quality control practices, can be invaluable data when compared to core. By comparing the well log response to the physical properties of the core, more knowledgeable log interpretation techniques should result for volcanic environments.

16. Question: How long can I arrange to keep the borehole data from being published?

Answer: Any reasonable request for a delay in publishing data will be considered, but in no case shall any delay be considered which keeps data from being published after the completion date of the Cooperative Agreement.

17. Question: Why are so many plans required? Couldn't these be consolidated?

Answer: Plans are required to define the work to be performed by task and approved by DOE prior to commencement of the work and incorporation into the Cooperative Agreement. Because of the sequential nature of the tasks, separate plans appear appropriate. However, where practical there is no reason plans cannot be consolidated into a single document as separate portions.

18. Question: Why does DOE have to have such a long, complicated agreement? Couldn't this be simplified?

Answer: The format of the Cooperative Agreement is established by regulation. The majority of the Agreement terms and conditions are required by either statute or regulation. The Cooperative Agreement has been simplified by DOE as much as possible.

19. Question: We believe it would not be in the best interest of "science" to split all the core, and propose instead that the total core be stored by DOE at a mutually acceptable site. Would DOE accept responsibility for storage of the core?

Answer: Yes.

20. Question: Would these cores then be available to us as a future data source? (Refer to Question 19.)

Answer: Yes.

21. Question: How does DOE propose that the measurement of "hydraulic head" be made on a daily basis prior to start of drilling?

Answer: See Item C. of this Amendment No. 2.

22. Question: Federal GRO's require that no geothermal fluid be produced from temperature gradient holes. How does DOE differentiate between "artesian flow" and geothermal fluids?

Answer: Artesian flow may or may not be geothermal fluid, However, in reference to this solicitation, on page 24 where fluid sampling is required as a part of data collection, it is not DOE's intent to require collection of any data prohibited by other regulatory bodies. (See Answer to Question 52 of this Amendment.)

23. Question: As a matter of specific mechanical information, the smallest logging tools capable of obtaining meaningful resistivity, gamma ray, neutron density, and self potential data, that we are aware of, are operated by Schlumberger. These tools referred to as "hostile environment tools" are 2-3/4 inch in diameter and are approximately 25 feet long each. Schlumberger will not run these tools in holes smaller than 4-1/8 inch diameter. The majority of our bores will be 3-3/4 inch or less in diameter. The smallest sonic tool we are aware of is 3-5/8 inch in diameter. Therefore, your minimum geophysical well logging requirements do not consider the mechanical restraints imposed by operating practice. Is DOE aware of this?

Answer: DOE is aware of commercially available 2 3/4" tools which can provide the log suite you have described, including sonic, and can be run in a minimum 3 1/2" diameter hole. Specifically, DOE is also aware of a commercially available sonic 1 11/16" tool which can be run in a minimum 2" diameter hole. Therefore, DOE's minimum geophysical well logging requirements do consider the mechanical restraints imposed by operating practice. (See Item D of this Amendment No. 2.)

24. Question: As defined by the SCAP, geophysical logging requires that a variety of geophysical logs be run, some of which would be mechanically impossible to run in a small diameter hole. We routinely run temperature and pressure logs (i.e. Amerada type instruments) but do not run caliper, resistivity, self potential, sonic velocity and density logs. Would DOE accept this alternative, data collection approach?

Answer: See Item D of this Amendment No. 2. See also the Answer to Question 51.

25. Question: All deep temperature holes constructed on either federal or private lands in California, Oregon and Washington are already subject to environmental clearances on both a general and site specific basis. A specific additional DOE Environmental Assessment seems to us to fly in the face of the intent as well as the letter of the paperwork reduction laws. Does DOE require additional studies or reports as to environmental clearances and if so, why?

Answer: The Environmental Evaluation Report as described on page 26 of the solicitation is required. (See also Item H of this Amendment No. 2.) Based on the individual proposal, additional studies or reports will only be required if necessary to meet DOE requirements under the National Environmental Policy Act.

26. Question: Did DOE consult with private industry representatives who are actively exploring in the Cascades? If yes, identify.

Answer: In answering this question we have defined the term "consult" to mean "discuss." Prior to the establishment of the Source Evaluation Panel for this solicitation, DOE program objectives were discussed with industry representatives, States, Federal Agencies, and DOE contractors in order to define industry needs relative to geothermal exploration in the Cascades. These contacts are too numerous and were unrecorded thereby making it impossible to identify individuals.

27. Question: If I choose to collect additional data from the hole which is outside the scope of the agreement, which is collected during the DOE access period, which is obtained solely at my cost and which is not included in the cost-share, will I be required to turn the data over to DOE?

Answer: No.

28. Question: Would DOE under the Cascades Drilling SCAP accept an application to deepen an existing temperature observation hole, with DOE to pay 100% of the costs until the costs of the existing hole are matched, after which any further project costs necessary to reach a depth of 3,000 feet are to be share equally?

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Amendment No. 2

Answer: DOE would accept for evaluation a proposal to deepen an existing hole, if the proposal meets the qualification criteria. DOE would, however, only cost-share up to 50% of those costs which are incurred under the Cooperative Agreement. (See the answer to Question No. 51 of this Amendment No. 2.)

29. Question: Has DOE ever considered an "after the fact" type of solicitation for subsurface data (i.e. ask if industry would be willing to share existing data)? If not, why not?

Answer: Yes. However, funds are only available for one type of solicitation at this time.

30. Question: Will any bonds that may be required by DOE be in excess of those required by BLM and state agencies?

Answer: No. DOE has determined that bonds are not required under this solicitation.

31. Question: Are DOE bond requirements redundant to BLM requirements?

Answer: No. (See the answer to Question 30 of this Amendment No. 2.)

32. Question: Why does DOE require bonds?

Answer: DOE has determined that bonds are not required under this solicitation.

33. Question: The proposed hole must be in the area shown by stippling on the map on page 3 of the solicitation. There are two shades of stippling. Does this mean that only one particular area of the Cascades will be open for proposals? If so, which area?

Answer: The stippling on the map on page 3 is in two densities, but it is the entire stippled area that is considered for this solicitation.

34. Question: Does the "right of access" requirement mean that any BLM or FS permits have to be in hand by the end of April?

Answer: No. Right of access must be proven prior to award of a Cooperative Agreement. It is not a requirement at time of proposal. Information concerning the status of right of access is requested in the proposal. (See page 14 of the solicitation.)

35. Question: Can funds (both Federal and Participant) be used to satisfy other Federal obligations?

Answer: The phrase "to satisfy other Federal obligations" is assumed to mean obligations or requirements imposed by the leasor or permittor. The acceptability would be up to the leasor or permittor.

36. Question: What is the maximum contribution by DOE (maximum \$ amount)?

Answer: A maximum contribution by DOE per award in dollar amount terms has not been predetermined. The only limitations are: (1) the maximum contribution by DOE to the total of all projects awarded as a result of this solicitation is \$1 Million dollars; and (2) the maximum contribution by DOE will not exceed 50% of the total estimated cost of each award.

37. Question: Do the anticipated DOE down-hole survey(s) have a minimum hole size?

Answer: The heat flow measurement tool DOE anticipates utilizing during the access period requires a minimum 2" diameter hole. However, it is not DOE's intent to place hole size (diameter) restrictions on the proposers.

38. Question: Does signed authorization for expenditure (AFE) from operator qualify as evidence of method of financing.

Answer: Yes, if supported by adequate financial resource data.

39. Question: Small diameter logging tools will not function in high temperature environments - high temperature tools must be sufficiently insulated to acquire data, usually 4" or greater, therefore, high temperature tools cannot be run in small diameter core holes, please comment.

- Answer: Should wellbore temperatures exceed tool capabilities, then mutual agreement between the Participant and DOE for an alternative approach would be required.
40. Question: Reference pg. 24 "in the case of artisian flow. . ." In some cases, the operator may decide it is not prudent to permit the hole to discharge fluids for environmental or safety reasons. What would be DOE's response?
- Answer: DOE would arrive at a mutual decision with the Participant.
41. Question: In the event of non-performance due to insoluable drilling problems, but not resource discovery, how are costs shared?
- Answer: Incurred allowable costs will be shared as specified in the negotiated Cooperative Agreement.
42. Question: In drilling emergencies, necessitating rapid action, must DOE approval of subcontractor be secured before work is commenced?
- Answer: Yes, if at all possible. However, in emergency situations, Contracting Officer ratification of a subcontractor may be requested "after the fact" if required by Clause No. 25 of the Cooperative Agreement.
43. Question: May reimbursed funds be credited towards Federal unit spending obligations?
- Answer: It is assumed that the term "Federal Unit spending obligations" means permit/lease requirements to spend an amount on geothermal exploration within a specified period of time. DOE cannot answer this question as DOE does not issue permits/leases. DOE suggests that you contact the regulatory agency issuing your permit/lease for an answer.
44. Question: What action will DOE take if a Contractor's best effort fails to get the deep thermal gradient hole to the minimum depth of 3000 feet?
- Answer: A mutual decision will be reached on a case-by-case basis within the terms of the Cooperative Agreement.

Solicitation No. DE-SC07-85ID12580  
Amendment No. 2

45. Question: Will access to the gradient hole and site be required through the periods of winter season snow cover?
- Answer: No.
46. Question: What is the implication of a 200-day effective period for proposals submitted? The DOE selection, negotiation and preparation processes indicates a 1986 field season drilling at the earliest.
- Answer: The 200 day effective period means that DOE may accept the proposal without revision any time within 200 days of the proposal's receipt date. DOE anticipates award to successful proposer(s) to allow for drilling in 1985.
47. Question: Can an operating subsidiary company, in qualifying its proposal, submit the financial resource data of its parent corporation?
- Answer: Yes, if the subsidiary does in fact have access to the financial resources of its parent corporation.
48. Question: Our proposal would state an ability to fund the non-DOE share of the entire deep thermal gradient project from 1985 or 1986 company budget allocations for geothermal exploration. Would that be adequate proof of ability to fund, if supported by company financial resource data?
- Answer: Yes.
49. Question: Has DOE received the anticipated \$1,000,000 appropriation, or other amount, for fiscal year 1985 and for this solicitation?
- Answer: Yes.
50. Question: Is a proposal considered administratively complete if the proposal meets the qualifications outlined in Section B?
- Answer: No. The Panel may also eliminate proposals from further consideration before the initial evaluation if the proposal is so grossly and obviously deficient as to be totally unacceptable on its face.



51. Question: Can the proposer change the Scope of Work text given in Section F to reflect any differences in approach?
- Answer: Yes. However, it may affect the evaluation either negatively or positively. Any change should be fully explained.
52. Question: Is there any limitation on size and depth of the gradient holes?
- Answer: No specific hole size (diameter) has been imposed by the solicitation. However, the proposed hole should be of a diameter to allow for the logging data required in the solicitation. The proposed hole depth has a minimum requirement of 3000 feet; there is no limitation on maximum depth.
53. Question: Under SCAP DOE has access to gradient hole, what compensation is available to the operator if DOE damages the hole during testing rendering same unusable?
- Answer: Compensation for damages to a hole, if caused by DOE, would be determined by the facts and circumstances related to such damage.
54. Question: Who has geophysical tools to log small core holes? What is the cost?
- Answer: Company names and costs are commercially available.
55. Question: Does the section of hole drilled for surface casing have to have open hole logging?
- Answer: See Item D of this Amendment No. 2.

CASCADES THERMAL GRADIENT DRILLING PROGRAM

PROCESSING AND EVALUATION PROCEDURES

Receipt of Proposals

Proposals are to be delivered to Room 129 in accordance with the solicitation. The Secretary is to date stamp each box as received. The SEP Chairman and Secretary will open the boxes after the closing time and will record from the boxes the date and time received and by whom. The receipt log will contain other information as determined by the SEP Secretary.

The proposals will be numbered as they are opened and the number entered into the log. The proposals will be checked to see that there are ten copies consecutively numbered from 1 to 10 as per the solicitation. Proposals that are received late are to have two people attest to the time of receipt and the boxes are to remain unopened until the Panel meets and considers the proper actions to take in accordance with the regulations.

Control of Proposals

The original (copy #1) will be retained by the Secretary as the file copy. Each Panel member will be assigned a specific copy for his use. The technical and business review committee members will be assigned a specific copy or check out copies depending on the availability. Each individual is responsible for the copies assigned and must keep them under control. When not in use the proposals must be stored in a locked room or cabinet. All proposals must be accounted for at the completion of the evaluation period and stored in a locked cabinet.

Preliminary Evaluation

A preliminary evaluation will be performed by the Panel to see if each proposal meets the qualification criteria. Each Panel member will review and concur on any proposal that is disqualified as not meeting the qualification criteria.

Detailed Evaluation

The technical proposals will be evaluated by a Technical Advisory Committee (TAC) and the business proposals will be evaluated by a Business Advisory Committee (BAC). S. M. Prestwich will be chairman of the TAC and Mr. S. R. Pulley will be chairman of the BAC. Appropriate Government and ~~GOCC~~ *contractor* personnel will be assigned to these committees by the Panel Chairman such that each committee will have at least three members including the chairman.

Each member of the Technical Advisory Committee will evaluate each sub-criterion of the technical evaluation for each proposal. Each member will score each sub-criterion with a numerical score from 0 to 10 using whole numbers only. The following table can serve as a guide to scoring:

## Table 1 - Suggested Guidelines for Scoring Proposals

The guidelines below are offered as an aid to standardize individual scorings. Each subcommittee may need to revise them for their particular task. When evaluating the proposed project under the criteria, it is useful to think in terms of probability of success and relate this probability to the numbers listed below. It is important to look at project probability of success, i.e. resource certainty, project organization, end-use suitability, etc. and to downplay brochuremanship.

10. Clearly Outstanding. Data or analyses show the project is certain to succeed. Project well organized.
9. Excellent. Data are very promising. Analyses are excellent. Project is very likely to succeed. Exploration, engineering, etc. need some minor improvements.
8. Very Good. Resource data and analyses indicate the project has promise. Additional data and analyses required.
7. Good. Data and analyses indicate reasonable chance of resource. Resource must be identified further by additional exploration.
6. Satisfactory. There is supporting data for a resource. Application seems reasonable. Project has slightly better than an even chance of success.
5. Average. Data and technical analyses show that project has about a 50-50 chance of success. Data in support of a particular criterion neither add to nor detract from the overall project probability of success.
4. Fair. Data show a reasonable chance of a resource, but much additional data called for.
3. Subadequate. Resource existence uncertain in the area and some data are given, but much additional data are needed before drilling. Proposal outlines some task required, but is incomplete. Project has only about 30% chance of success.
2. Inadequate. Resource has only slight chance of being present. End-use match unsatisfactory. Project organization very incomplete.
1. Poor. Data provide only minimal evidence of a resource. Proposal fails to address criteria in any satisfactory fashion. Project has only a slight chance of success.
0. Unsatisfactory. No discussion or data presented on this as part of the project. Data provide no evidence of a resource or that the project has any chance of success.

Each member will be provided with worksheets intended to serve as a guidance during the review of the proposals.

Each member will prepare adequate written justification at the criteria level for the assigned scores emphasizing strengths, weaknesses, and desired additional clarification. The members of the committee will meet and discuss each proposal and arrive at a consensus score for each sub-criterion and provide supporting documentation taken from the individual appraisals. The scoring at this stage is to be from 0-10, but can be to tenths of whole numbers. If a consensus cannot be reached, a majority and minority evaluation should be prepared.

It is suggested that the consensus report be completed at intervals (daily) through the evaluation period.

The finalized consensus report will be provided to the SEP for consideration.

The technical committee chairman will weight the sub-criterion consensus evaluation to arrive at a weighted score for each criteria and finally for a weighted technical score.

Each member of the Business Advisory Committee will evaluate each of the four business evaluation criterion for each proposal. Each criterion will be adjectively rated using the following adjectives:

- 0     unsatisfactory
- 2     inadequate
- 5     average
- 8     very good
- 10    clearly outstanding

Each member will prepare adequate written justification for the assigned adjective scores emphasizing strengths, weaknesses, and desired clarification. The members of the committee will meet and arrive at a consensus rating for each criterion and provide supporting documentation taken from the individual appraisals. If a consensus cannot be reached, a majority and minority report will be prepared.

The business committee chairman will weight the criterion consensus evaluation to arrive at a weighted business final rating.

Each member of the Panel will evaluate all aspects of each proposal and rate each sub-criterion and criterion for each proposal using the same scoring system discussed above for the technical and business committees. Each member should also discuss the strengths and weaknesses and justification for the assigned evaluation.

The Panel members will consider the evaluation and analysis of the advisory committees and their own evaluations to arrive at a score. The Panel will then meet and arrive at a Panel consensus score at the sub-criterion level. The appropriate weighting factors will be applied to arrive at a final score or rating for each proposal. The Panel will also prepare the summary strengths and weaknesses and very importantly the additional information desired.

The Panel will then establish the competitive range and consider the additional information desired. A determination will be made with regard to a need for a site visit to all those in the competitive range. Specific information desired will be defined in advance of the visits. A common due date will be required for submittal of any additional information requested of those in the competitive range. This additional information will be evaluated by the Panel and adjustments made to the consensus rating to arrive at a final ranking.

Evaluation of Cost

Although the cost information will be limited, the BAC will review the cost information obtained and report on the validity of the proposed cost, the differences among offerors, the probable cost to the Government of each proposal and the probable cost differences among offerors and their causes.

TECHNICAL ADVISORY COMMITTEE

Evaluator \_\_\_\_\_

Proposal \_\_\_\_\_

Identification No. \_\_\_\_\_

INSTRUCTIONS

The evaluators shall consider the following factors in their comprehensive evaluation of each study proposal. Significant and detailed favorable and/or unfavorable comments are to be recorded in the spaces provided. The evaluator shall be particularly complete in recording data regarding scores which are exceptionally high or low. These data will be used to arrive at a consensus score for each proposal. (Please note that each Criterion shall be scored 0 to 10, with 10 being OUTSTANDING.)

Criterion 1: Resource Potential - The resource potential will be evaluated considering the following factors:

- a. The likelihood that the proposed depth of the thermal gradient hole will penetrate the rain curtain into the deeper hydrothermal system.
- b. The potential that the hole and data to be obtained from the hole will expand or enhance the knowledge of the geohydrology and geothermal resource potential within the Cascades volcanic region.
- c. The amount of available surface and subsurface data contained in the proposal which is of high quality and important to evaluating the geothermal potential of the Cascades volcanic region.

a.1 Is a hydrothermal exploration target developed from the available data and described in the proposal? ✓

Evaluate the extent to which the proposed hydrothermal target is supported by the geologic description and by the data submitted.

Consider:

- a) contribution of regional geologic setting.
- b) contribution of subsurface information from prior drilling.
- c) contribution of other geological, geochemical or geophysical data that bear on the potential resource.
- d) any negative information that bears on the resource and the extent to which this negative information is successfully rationalized.

Discussion:

Score a.1 \_\_\_\_\_

a.2 Are there hydrothermal manifestations such as thermal springs or thermal spring deposits, hydrothermal alteration or thermal wells at or near the proposed site?

Evaluate the extent to which the described hydrothermal manifestations support the concept of occurrence of a hydrothermal reservoir at the proposed site.

Discussion:

Score a.2 \_\_\_\_\_

a.3 Is there a high likelihood the proposed work depth will penetrate the "rain curtain?"

Evaluate the extent to which the proposed drill site and well depth are supported by surface, subsurface, and other data that a deep hydrothermal system will be encountered.

Discussion:

Score a.3 \_\_\_\_\_

Score a. \_\_\_\_\_

b. Will the hole and data likely obtained expand the knowledge of the Cascades volcanic region geothermal resource potential?

Evaluate giving higher scores to those holes which have potential to provide significant resource characterization beyond the project described in this proposal.

Discussion:

Score b. \_\_\_\_\_

c. Does the proposal contain more surface and subsurface data than required and is it of a quality to enhance understanding of the geothermal resource potential?

Evaluate giving higher scores to proposals which clearly provide an abundance of quality resource data.

Discussion:

Score c. \_\_\_\_\_

Criterion 1 Total Score \_\_\_\_\_

Criterion 2: Technical Planning

- a. The quantity, quality, and type of data to be gathered during the project.
- b. The suitability of planned hole completion for testing requirements during and after drilling.
- c. The content, adequacy, and completeness of drilling and data collection plans.
- d. Lack of any restrictions on the immediate release of data.

- a. Are the type of quality of data to be gathered consistent with SCAP requirements?

Evaluate giving higher scores to proposed Data Collection Plans which exceed in type, quality, and quantity the specified requirements, in fluid sampling.

Discussion: \_\_\_\_\_ Score a \_\_\_\_\_

- b.1 Is the hole to be constructed in such a manner AND to a depth sufficient to provide a reliable, undisturbed value for thermal gradient can be obtained?

Discussion: \_\_\_\_\_ Score b.1 \_\_\_\_\_

- b.2 Are the hole and site to be constructed, completed, and maintained to provide DOE access to the hole and site for additional logging, testing or other scientific purposes at least a 12-month period of time after well completion?

Discussion: \_\_\_\_\_ Score b.2 \_\_\_\_\_

Score b \_\_\_\_\_



c.1 Does the drilling plan adequately address preproposed blow-out prevention and safety equipment? Are the proposed casing and cementing procedures adequate?

Discussion:

Score c.1 \_\_\_\_\_

c.2 Are both the drilling data collection plans satisfactory in terms of content, adequacy and completeness?

Discussion:

Score c.2 \_\_\_\_\_

d. Does the proposal contain any restrictions as to the release of data to the public?

Restrictions on data release should receive a lower score reflecting the significance of the restrictions.

Discussion:

Score d \_\_\_\_\_

Criterion 2 Total Score \_\_\_\_\_

Criterion 3: Project Management - The project management will be evaluated to determine the adequacy of the following:

a. Organization and Management Team:

- (1) Qualifications, capabilities, and experience of key personnel with projects of comparable scope; i.e., in geothermal, petroleum, hydrology or related technologies.
- (2) Qualifications, capabilities and experience of the participating organization(s).

b. Project Management Plan:

- (1) Completeness and adequacy of the Statement of Work, discussion of individual responsibilities and task assignments of each project participant, estimates of personnel effort for each of the tasks, discussion of manpower availability to satisfy task requirements, and management techniques.
- (2) Completeness and adequacy of the detailed schedule including sequence of project tasks, principal milestones, and decision points.

a.1 Are all key personnel identified? Do key personnel assigned to the project have the qualifications and experience necessary to conduct a project of this scope?

a.2 Do all participating subcontractors and organizations have adequate experience and capabilities to conduct a project of this scope, particularly in drilling and testing?

Discussion:

Score a \_\_\_\_\_

b. Is the project management plan complete and adequate, addressing all requirements as stated by Criterion 3.b.1 and 3.b.2?

Discussion:

Score b \_\_\_\_\_

Criterion 3 Total Score \_\_\_\_\_

Criterion 4: Institutional Considerations - The institutional considerations will be evaluated according to their potential impact on the success of the project:

- a. Proposed solution to known and potential adverse environmental issues.
- b. Proposed solutions to relevant legal, social, or institutional problems.
- c. Proposed resolution of potential safety problems and practices.

← 1. Does the proposal indicate adequate understanding of environmental, institutional, and safety issues?

← 2. Are the solutions to potential problems in these areas adequate and reasonable?

← 3. Does the proposal indicate any aspect which could impact the completion of the project?

Discussion:

Score: \_\_\_\_\_

Criterion 4 Total Score \_\_\_\_\_

Technical Advisory Committee

Consensus Scoresheet

Proposal \_\_\_\_\_

Identification No. \_\_\_\_\_

	1	2	3	4	5	6	7	8	<u>Consensus Score</u>
Criterion 1 - Resource Potential									
a. likelihood									
b. potential to expand knowledge									
c. quality of data									
Criterion 1 - Total Score									(0-10)

Discussion: (Strength, Weakness, Clarification)

Criterion 2 - Technical Planning

- a. Data
- b. Hole Completion
- c. Plans
- d. Restrictions

Criterion 2 - Total Score (0-10)

Discussion:

Proposal \_\_\_\_\_

Identification No. \_\_\_\_\_

Evaluators \_\_\_\_\_

Dates \_\_\_\_\_

Criterion 3 - Project Management

- a. Team
- b. Plan

Criterion 3 - Total Score

(0-10)

Discussion:

Criterion 4 - Institutional Considerations

- a. Environmental
- b. Institutional
- c. Safety

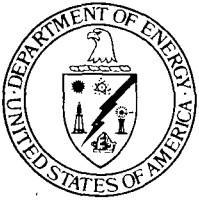
Criterion 4 - Total Score

(0-10)

Discussion:

Committee Consensus Rating

(0-10)



## Department of Energy

Idaho Operations Office  
550 Second Street  
Idaho Falls, Idaho 83401  
March 29, 1985

Dr. Michael Wright  
Earth Science Laboratory  
391 Chipeta Way, Suite C  
Salt Lake City UT 84108

SUBJECT: Technical Advisory Committee to the Source Evaluation Panel  
SCAP No. DE-SC07-85ID12580, Cascades Regional Deep Thermal  
Gradient Drilling

Dear Dr. Wright:

You are requested to serve as a member of the subject Committee. We are enclosing a Statement of Confidentiality and Freedom from Conflict of Interest which must be executed by you and returned to me prior to your participation in the Committee activities. By returning the executed Statement to me, you are accepting appointment to the subject Committee with the conditions and restrictions imposed by this letter and the enclosed Statement.

I recommend that you keep a copy of your executed Statement for your own information and future reference.

The Committee will convene at 1 p.m. Tuesday, April 30, for proposal review. We will meet at DOE-ID Headquarters Building, Room 128. It is anticipated that the Committee will be in session until noon on May 3, 1985.

If you will require reimbursement for travel and per diem expenses, you must submit an estimate of costs with your signed Statement of Confidentiality.

Should you decide not to accept the appointment, you are requested to return the enclosed Statement to me unsigned.

Sincerely,

A handwritten signature in cursive script, appearing to read "T. A. Hart".

T. A. Hart Chairman  
Source Evaluation Panel

Enclosure

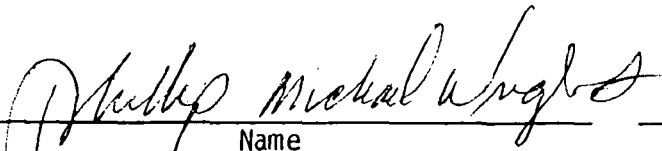
CERTIFICATE OF CONFIDENTIALITY AND FREEDOM FROM CONFLICT OF  
INTEREST FOR EVALUATION OF PROPOSALS FROM SOLICITATION FOR  
PROPOSALS FOR CASCADES REGIONAL THERMAL GRADIENT DRILLING

In anticipation of my participation on the Technical Advisory Committee to the Source Evaluation Panel formed to evaluate proposals submitted in response to the subject solicitation, I certify that I will not disclose, except pursuant to the order of a court of competent jurisdiction, any information either during the proceedings of the Committee or any subsequent time concerning the evaluation or other activities of the Committee to anyone who is not also participating in the same proceedings or who is not also authorized access to the information by law or regulation, and then only to the extent that such information is required in connection with such proceedings or in connection with such person's official responsibilities. Furthermore, I will report to the Chairman of the Panel any communication concerning the solicitation or the Committee's or Panel's composition and activities directed to me from any source outside the Committee or the Panel.

I certify that I am not aware of any matter which might reduce my ability to participate in the subject Technical Advisory Committee proceedings and activities in an objective and unbiased manner or which might place me in a position of conflict, real or apparent, between my responsibilities as a member of the Committee and other interests.

I also certify that to my knowledge neither I, my spouse, minor children, nor any member of my immediate family has any stock, bond, or other financial interest in, or any employment arrangement with any person, firm, or other organization which has submitted a proposal or otherwise has an interest in the project which is subject of the solicitation. I also agree that in the event that subsequent to the execution of this certification by me, any person, firm, or organization in which, to my knowledge I (including my spouse, minor children and other members of my immediate household) have a financial interest or with which I have (or had) an employment arrangement, submits a proposal or otherwise becomes involved in the subject project, I will notify the Chairman of the Panel, and thereafter, until advised to the contrary, I will not participate further in any way, by rendering advice, making recommendations, voting, or otherwise in the work of this Committee.

I agree to use information contained in proposals which I receive for evaluation only for DOE evaluation purposes and to treat the information obtained in confidence. This obligation shall not apply to information obtainable from any source, including the proposer, without restriction. Any notice or restriction placed on the proposal by either DOE or the originator of the proposal shall be conspicuously affixed by me to any reproduction or abstract thereof and its provisions will be strictly complied with. Upon completion of the Technical Advisory Committee activities, I will return all copies of the proposal and abstracts, if any, to the DOE office which initially furnished the proposal for evaluation. Unless authorized by the Panel Chairman, I will not contact the originator of the proposal concerning any aspect of its contents.

  
Name \_\_\_\_\_ Date 2 April 85



## Department of Energy

Idaho Operations Office  
550 Second Street  
Idaho Falls, Idaho 83401  
November 9, 1984

Dr. Mike Wright  
Earth Science Laboratory  
391 Chipeta Way, Suite C  
Salt Lake City, UT 84108

Dear Mike:

Well, it appears we are approaching the final stage of the Cascades solicitation. Proposals are due Monday, Dec. 10, 1984. I am requesting you for the proposal review Dec. 11, 12, and 13 here in Idaho Falls. I would like to convene the TAC at 8:30 a.m. Tuesday, Dec. 11, 1984. Idaho Operations Headquarters Building, Room 127, 550 Second Street.

We will be expected to review the proposals in accordance with review worksheets. We will compile our evaluation into a report which will be submitted to the Source Evaluation Panel for their consideration.

The Littletree Inn, 888 North Holmes Avenue, will provide a special rate for rooms at 34.50 per day plus tax, which includes a continental breakfast. You may call the Littletree for reservations at 208-523-5993. They suggest you make your reservations by November 26th.

For those of you who need expenses reimbursed, submit an invoice of expenses to Twila Hart, DOE Idaho Operations Office, Room 351, 550 Second Street, Idaho Falls, ID 83401. Please identify the SCAP #DE-SC07-85ID-12555 on the invoices.

Looking forward to a good proposal review. See you in December.

Very truly yours,

A handwritten signature in cursive script that reads "Susan M. Prestwich".

Susan M. Prestwich  
Technical Advisory Committee

cc:  
E. Hyster



CASCADES RESEARCH PROGRAM

PROGRAM PLAN

Submitted to:

U.S. DEPARTMENT OF ENERGY  
Idaho Operations Office

By:

EG&G Idaho, Inc.

and

Earth Science Laboratory  
University of Utah Research Institute

January 1985

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## 1.0 EXECUTIVE SUMMARY

The purpose of the Cascades Research Program is to conduct research on the geothermal resources of the Cascades Volcanic Region in California, Oregon and Washington. The objectives of the program are to (a) characterize the Cascades geothermal resource potential, (b) stimulate development of the region by making data publicly available, and (c) increase knowledge of both applicable exploration techniques and the depth required to penetrate the overlying cold ground-water system that masks and suppresses surface evidence of the underlying hydrothermal system.

The program's implementation strategy comprises four principal activities: thermal gradient drilling, data acquisition, data integration and interpretation, and technology transfer. DOE will cost-share surface exploration and drilling of deep thermal gradient holes and the extraction from these holes of fundamental subsurface information to identify and characterize the hydrothermal system of the Cascades region. After the drilling is completed, DOE will have up to one year to perform R&D activities at each of the drill hole locations. Data obtained both during drilling and in the one year period following drilling will be integrated and evaluated into case studies and a final report. Additional technology transfer will result from publication of the transactions from workshops and conferences and from reports that will be submitted for publication in professional journals.

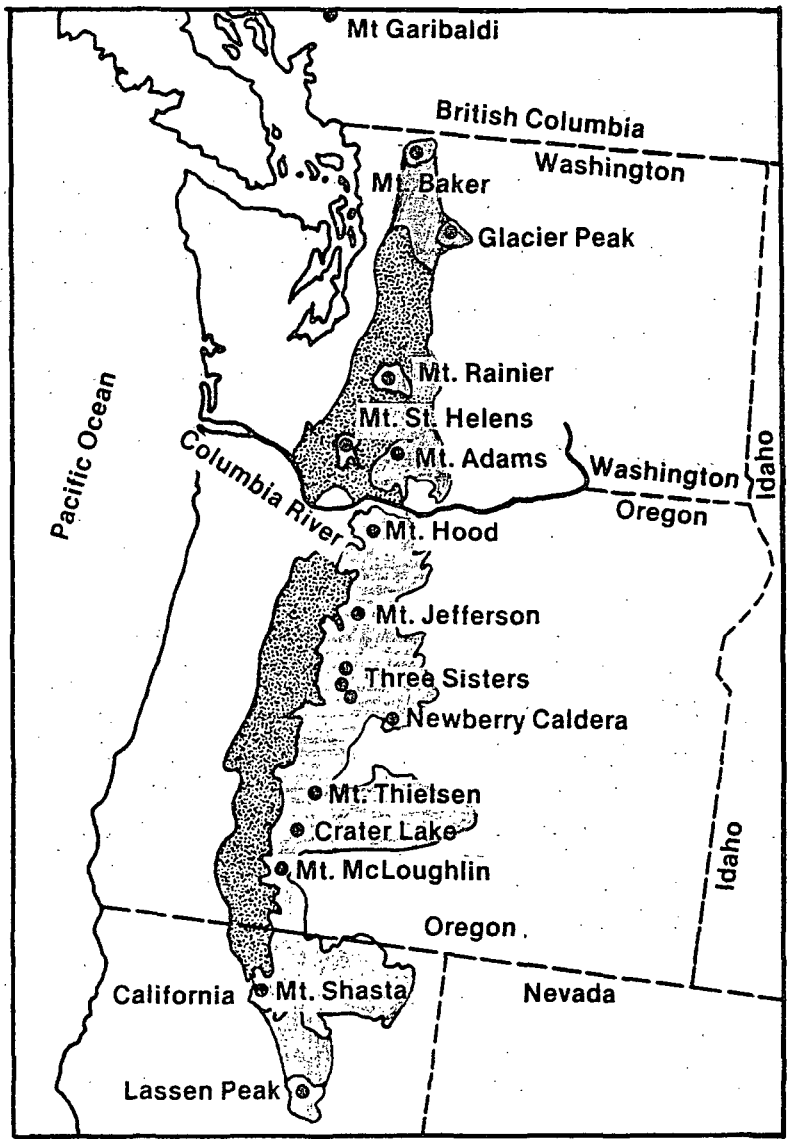
The program will be completed in FY-1987, and the estimated cost by year is: FY-1985--\$1,535K; FY-1986--\$500K, and FY-1987--\$350K.

## 2.0 INTRODUCTION

The nation's hydrothermal resources represent a vast energy asset that is free of foreign control or interference. These resources should be developed as rapidly and efficiently as possible. If all the hydrothermal resources identified in the United States Geological Survey's Circular 790 in the Cascade Mountains of California, Oregon and Washington were utilized (see Figure 1) the total energy available at the wellhead from resources above 90°C would be greater than 50 quads, which is equivalent to 9 billion barrels of oil. And, the same source estimates that the undiscovered accessible resource base in the Cascade Mountains could be twenty times as great as the identified resources. Even though these are hypothetical numbers, the promise of a very large energy resource certainly exists.

However, high temperature geothermal systems in the Cascades have remained elusive exploration targets, with confirmed resource temperatures present only at Meager Creek in British Columbia, Newberry Caldera in Oregon, and Lassen Peak in California. The most widely accepted premise used for the apparent lack of geothermal systems in this province rich in volcanic heat sources is that the resource is masked by the cold ground water system. If geothermal systems are present, it is clear that exploration will be both expensive and risky. Both the risk and expense can be mitigated somewhat through the development and application of valid exploration strategies. Each strategy must be developed and applied with cost in mind, progressing from less expensive methods early in the program to more expensive methods utilized to site expensive production-scale wells. In this way, the financial risk can be limited.

Although few high-temperature geothermal systems are known in the Cascades Province, producing geothermal systems occur in similar settings in other parts of the world. These include the Neovolcanic Belt of Mexico, the volcanic belt of Central America, and the island arc environments of New Zealand, Japan, Indonesia, and the Philippines. Data are available for most of these environments and can be used in establishing conceptual models.



S4 11 478

Figure 1. Cascades Geothermal Area.

for geothermal systems in andesitic volcanic environments in general. In addition, abundant data are available for fossil hydrothermal systems in these environments, that is, hydrothermal ore deposits in sub-volcanic settings. This literature can provide valuable information on the character of fracturing and faulting in these environments and the ability of these channels to carry hydrothermal solutions.

During the past five years, the U.S. Geological Survey, working partly under funding provided by DOE-DGHT, has been conducting fundamental earth science studies in the Cascades region aimed at obtaining a better understanding of the geothermal resources. Most of this work has been regional in nature. It has consisted of collection and interpretation of a large variety of data including geologic mapping, aeromagnetic surveys, gravity surveys, active and passive seismic surveys and geochemical studies. These data have been evaluated largely in terms of developing a regional geologic picture and have been applied specifically in only a few areas. The results of this work, as well as the basic data and to a certain extent the USGS personnel working on the project, will be available to researchers on the present program and will provide substantial assistance.

The Cascades Research Program is expected to contribute materially to knowledge of heat flow and other aspects of potential Cascades geothermal environments. Data generated from this program will require integration into available data bases, and interpretation and publication in order to maximize their utility to industry and stimulate geothermal development.

### 3.0 PROGRAM DESCRIPTION

The Cascades Research Program consists of DOE cost-shared surface exploration and drilling of deep thermal gradient holes and the extraction from these holes of fundamental subsurface information to identify and characterize the hydrothermal system. It is also planned that the program will increase knowledge of both unique exploration techniques and the depth required to penetrate beneath the extensive regional cold ground-water system that suppresses surface evidence of underlying hydrothermal systems (i.e., the "rain curtain").

This program plan defines a program designed to support industry efforts in the identification, evaluation, extraction and utilization of geothermal resources in the Cascades as an alternative energy source. The plan, with its major program elements and work subsets, is shown diagrammatically in Figure 2. A discussion of these major elements follows. A cost and schedule summary is presented in Section 5.0.

#### 3.1 Thermal Gradient Drilling

DOE issued a "Solicitation for Cooperative Agreement Proposals (SCAP) Number DE-SC07-85ID12555" for the drilling of deep thermal gradient holes in the Cascades region of Washington, Oregon, and California late in FY-1984. To qualify for consideration, the proposer had to meet the following criteria:

- 1) The proposed site must be located within the Cascades volcanic region of the United States as delineated by Figure 1.
- 2) The proposal must include a cost-share plan in which DOE's share shall not exceed 50 percent.
- 3) The proposer must agree to complete the hole and allow DOE access to the hole for data acquisition.

CASCADES RESEARCH PROGRAM

THERMAL GRADIENT DRILLING

DATA ACQUISITION

DATA INTEGRATION AND INTERPRETATION

TECHNOLOGY TRANSFER

- SCAP #DE-SC07-85ID12555

- Planning Assistance

- Technical Assistance

- Environmental Evaluation

- Data Collection

- Lithologic Logging

- Aquifer Characterization

- Heat Flow Studies

- Others as Determined by Advisory Group

- Data Integration

- Consolidated Data Interpretation

- Internal Workshops

- Workshops

- Case Studies

- Final Report

Figure 2. Program Work Elements



- 4) Each proposer must provide, as part of its proposal, documentation in the form of a lease, agreement, or ownership providing it an existing right of access for geothermal exploration to the proposed drill site.

The proposer is required to submit both a technical proposal and a business proposal. Some of the requirements that must be included in the technical proposal include a geological description of the resource, drilling plans, a data collection plan, hole completion and maintenance plans, and abandonment plans. He is also required to address institutional considerations such as environmental issues. Some of the requirements that must be included in the business proposal are a financial plan, cost-share plan, cost/budget summary and organizational information. All of the data and information obtained during and after drilling will be available to the public.

As stated in the SCAP, the proposer must agree that the hole will be completed and maintained by the proposer such that DOE will have access to the hole for a specified period of time. During that period, DOE will perform at its own expense further data gathering and tests for equilibrated thermal gradients and resource parameters. A selected proposer may independently acquire additional data from the hole during the DOE access period on a non-interference basis.

UURI will provide DOE with planning assistance for the drill site selection and technical assistance for the drilling operations as required. EG&G will make certain that environmental concerns are accounted for in the drilling program.

### 3.2 Data Acquisition

Activities included in the R&D effort include data collection and analysis, lithologic logging, aquifer characterization, heat flow studies, and any other work as determined by the advisory group.

UURI will establish sampling procedures for lithologic samples acquired in the drilling operation and will archive splits of the drill chips and fluid samples in the Geothermal Sample Library. This data will be released to the public by open-filing as instructed by DOE. Also, UURI will produce lithologic logs of the cuttings and core and will interpret the logs in relation to the local surface geology.

UURI will also have the lead role in aquifer characterization and supplemental data collection. One of the key objectives of DOE's program is the evaluation of the effects of stacked aquifers and cold water flow that has been postulated in these aquifers on surface geothermal manifestations. They will evaluate the extent of cold water overflow in each drill hole and will obtain several temperature profiles in each hole until an equilibrium profile is obtained. Another component will be to add chemical tracers to the drilling fluid. These tracers will allow the determination of the amount of drill fluid contamination of water samples collected for chemical analysis and the calculation of chemical geothermometers. Hydrothermal alteration in drill chip and core samples will be investigated to determine the maximum temperatures experienced by the rocks and these will be compared with the present temperature measured in the holes. Other data that may be required will be determined by DOE's advisory group.

David Blackwell of Southern Methodist University has been measuring and interpreting heat flow values in the Cascades region for many years and is the recognized expert on this topic. It is planned that he be funded to measure precise temperature gradient and thermal conductivity on the DOE holes and core samples for the purpose of heat flow determination and to interpret the results.

### 3.3 Data Integration and Interpretation

Integration, evaluation and interpretation of the new data obtained from drilling and research activities will be the responsibility of the state resource assessment teams in Washington, Oregon and California, UURI, USGS, and others as appropriate.

The new data collected will need to be integrated into the regional and site specific data bases collected by the USGS and the state resource teams. Then a consolidated interpretation will be needed in order to develop conceptual geologic models of Cascades-type hydrothermal resources. The scientists working on this project will meet in one or more internal workshops to insure that the best consolidated interpretation of the data is made.

### 3.4 Technology Transfer

It will be important to communicate results of the above work to industry, and a series of workshops and conferences will be conducted. Transactions of these meetings will be published to help document results, and the findings will be presented at professional meetings and reports will be submitted for publication in professional journals.

Also, topical reports generated by research tasks and case studies will be prepared to cover the work at each of the drill sites, and a final report will be written that includes a review of existing literature, a discussion of the siting criteria used for the thermal gradient holes, and the results of topical reports, open-file data, and other geoscientific work done.

## 4.0 IMPLEMENTATION PLAN

The following section describes the approach DOE has adopted to execute the technical program.

### 4.1 Management Organization

The Geothermal and Hydropower Technologies Division (DGHT) has overall management responsibility for the Cascades Research Program. The Idaho Operations Office of the U.S. Department of Energy (IDO) has been assigned by DGHT the program management support and coordination responsibilities. IDO will assign the technical performance of specific program tasks to DOE national laboratories, USGS, universities, states and others as appropriate who possess the proper expertise to properly perform the work required by the program. The relationship among the participating organizations is shown in Figure 3.

### 4.2 Responsibilities

1. Division of Geothermal Hydropower Technology (DGHT):
  - o Establish overall program policy, objectives, and direction
  - o Approve program plans and periodic updates
  - o Provide program guidance and financial resources to field offices
  - o Evaluate program effectiveness and redirect activities as needed
  
2. Idaho Operations Office (IDO)
  - o Provide program management, coordination, and implementation as delegated by DGHT
  - o Develop and coordinate planning for the program
  - o Provide direction and coordinate performance of program elements performed by national laboratories, and university- and industry-contracted participants

GEOHERMAL & HYDROPOWER  
TECHNOLOGIES DIVISION  
WASHINGTON, DC

IDAHO OPERATIONS OFFICE  
IDAHO FALLS, ID

SCAP  
Participants

EG&G  
Idaho, Inc.

UURI

LBL, USGS,  
Others

- Drilling

- Environmental Support

- Planning Assistance
- Technical Assistance
- Research
- Technology Transfer

- Research
- Technology Transfer

Figure 3. Management organization.

- o Perform necessary procurement actions
- o Provide periodic reporting on program progress, expenditures, and plans to DGHT
- o Conduct periodic appraisals of program effectiveness and obtain DGHT approval for program changes that affect scope, cost, and schedule

3. University of Utah Research Institute (UURI)

- o Planning Assistance
- o Technical Assistance for Drilling
- o Data Collection and Dissemination
- o Lithologic Logging
- o Aquifer Characterization
- o Supplemental Data Collection
- o Case Studies
- o Exploration Strategies
- o Technology Transfer
- o Final Report

4. EG&G Idaho, Inc.

- o Environmental Evaluations

5. Southern Methodist University

- o Heat Flow Studies

6. Others

- o State Resource Assessment Teams
- o DOGAMI
- o LBL
- o UURI

### 4.3 Quality Program Plan

The SCAP for Cascades Thermal Gradient Drilling was reviewed by the DOE quality assurance staff, and it is recommended that the resulting contract include the quality requirements outlined in ANSI Standard Z1.8-1971, "Specification of General Requirements for a Quality Program". Particular sections of the SCAP to which the Quality Requirements apply were itemized and will be included in the finalized document.

## 5.0 COST AND SCHEDULE SUMMARY

The Program Plan Schedule is shown on Figure 4. In FY-1985, participants for the Cascades thermal gradient drilling will be chosen, procurement activities completed, and drilling activities will be completed. Monitoring methods and procedures which assure compliance with environmental concerns will be instituted, studies will be conducted, and UURI will do research which may be required in support of thermal gradient hole selection. Guidelines for the DOE research effort will be determined by an advisory committee comprised of USGS, state geologists, program researchers and industry participants.

In FY-1986, heat flow studies and other research will be performed on the thermal gradient holes with the ultimate goal being the characterization of the Cascades geothermal resource. Participants in the effort will be UURI, EG&G Idaho, Oregon Division of Geology and Mineral Industries, Southern Methodist University, Washington Department of Natural Resources, and California Division of Mines and Geology. Data analysis will be started and technology transfer activities begun as applicable.

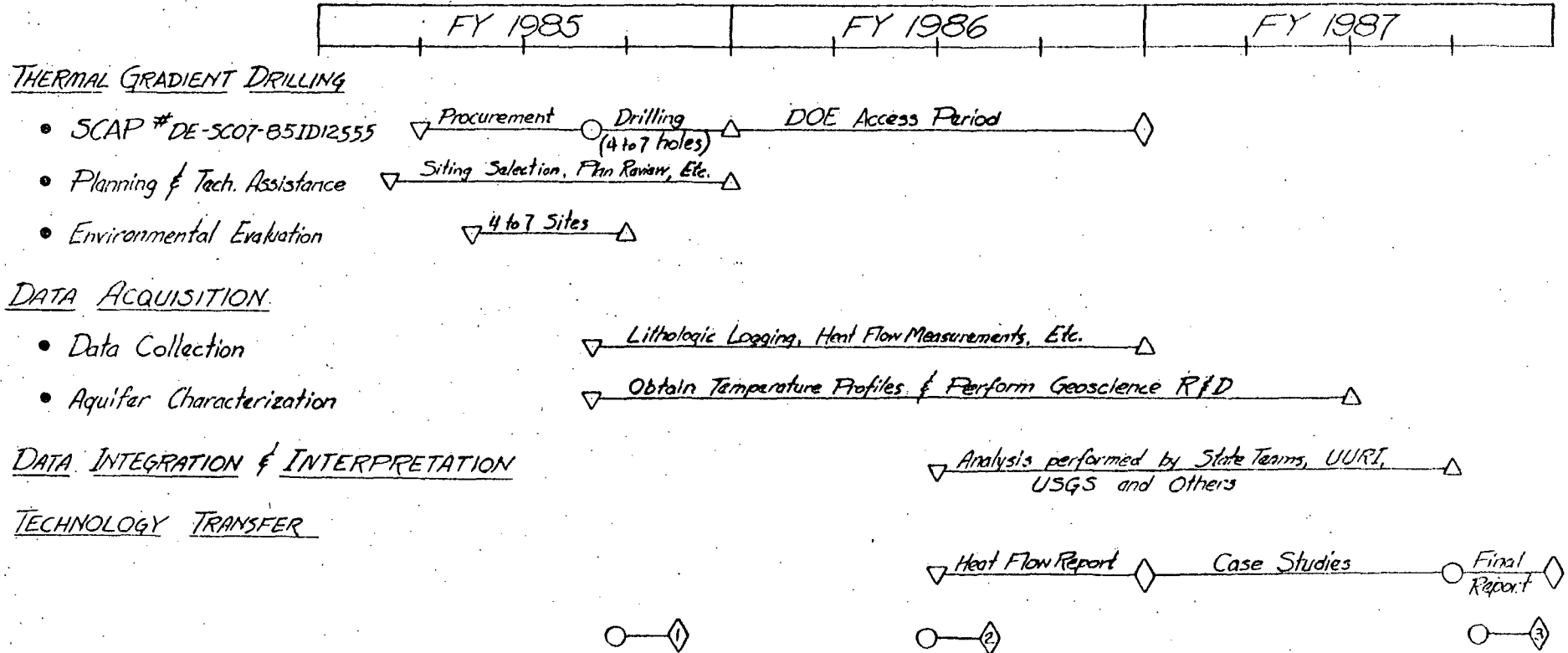
In FY-1987, the research started in FY-1986 will be concluded. The data obtained will be integrated into topical reports and case studies will be prepared to cover the work at each of the drill sites. A final project report will include a review of existing literature, a discussion of the siting criteria used for the thermal gradient holes, and the results of topical reports, open-file data, and other geoscientific work done on each hole. Workshops will be conducted and transactions of these meetings will be published to help document the results of the research effort.

The estimated total program costs for the above work are as follows: FY-1985--\$1,515,000; FY-1986--\$500,000; FY-1987--\$350,000.



# CASCADES RESEARCH PROGRAM

## PROGRAM PLAN SCHEDULE



1. Advisory Committee Planning Meeting -- August 1985
2. Workshop #1 -- May 1986
3. Workshop #2 -- September 1987

Figure 4. Program schedule.

## 6.0 REFERENCES

1. "Cascades Thermal Gradient Drilling", Solicitation for Cooperative Agreement Proposals (SCAP) Number DE-SC07-85ID12555.
2. Muffler, L.J.P., 1979, "Assessment of Geothermal Resources of the United States--1978", Geological Survey Circular 790.