

1. CONTRACT (Proc Init Ident) NO -02-81-039		2. EFFECTIVE DATE APR 1 1981		3. REQUISITION/PURCHASE REQUEST/PROJECT NO.		4. CERTIFIED FOR NATIONAL DEFENSE UNDER DDSA REG. 2 AND/OR DMS REG. 1. RATING:	
5. ISSUED BY U.S. NUCLEAR REGULATORY COMMISSION DIVISION OF CONTRACTS WASHINGTON, DC 20555				6. ADMINISTERED BY (If other than block 5)		7. DELIVERY FOR DESTINATION <input type="checkbox"/> OTHER (See below)	
8. CONTRACTOR NAME AND ADDRESS Williams-Robinette and Associates, Inc. P. O. Box 48 Viola, Idaho 83872				9. DISCOUNT FOR PROMPT PAYMENT		10. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN BLOCK	
11. SHIP TO/MARK FOR				12. PAYMENT WILL BE MADE BY			
13. THIS PROCUREMENT WAS <input type="checkbox"/> ADVERTISED, <input checked="" type="checkbox"/> NEGOTIATED, PURSUANT TO: <input type="checkbox"/> 10 U.S.C. 2304 (a)(1) <input type="checkbox"/> 41 U.S.C. 252 (c)(10)							
14. ACCOUNTING AND APPROPRIATION DATA B&R NO.: 50-19-03-03 FIN NO.: B-7301-0							

15. ITEM NO.	16. SUPPLIES/SERVICES	17. QUANTITY	18. UNIT	19. UNIT PRICE	20. AMOUNT
	"Site Suitability Assessments Based on Seepage and Groundwater Conditions Associates With Uranium Recovery Operations"				
	Type of Contract: Time and Materials				

21. Monetary Limitation		TOTAL AMOUNT OF CONTRACT \$ 120,328.00	
CONTRACTING OFFICER WILL COMPLETE BLOCK 22 OR 26 AS APPLICABLE			
22. <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 4 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)		26. <input type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.	
23. NAME OF CONTRACTOR BY <i>Roy E. Williams</i> (Signature of person authorized to sign)		27. UNITED STATES OF AMERICA BY <i>Mary Jo Mattia</i> (Signature of Contracting Officer)	
24. NAME AND TITLE OF SIGNER (Type or print) Roy E. Williams Secretary/Treasurer		28. NAME OF CONTRACTING OFFICER (Type or print) MARY JO MATTIA	
25. DATE SIGNED 4/1/81		29. DATE SIGNED APR 03 1981	

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ARTICLE I - STATEMENT OF WORK

A. BACKGROUND

Uranium recovery operations consisting primarily of milling, heap leaching, or in situ leaching (solution mining) of uranium ore may produce significant impacts on groundwater quality. Various chemicals added to the ore or compounds solubilized during the recovery process may cause a degradation in groundwater quality. Most of the radionuclides in the original ore other than uranium are not removed in the recovery process and processing of the ore may increase the potential for these radionuclides (principally Th-230, Ra-226, Pb-210, Po-210) to enter groundwater sources. With these impacts in mind, licensing performance objectives for uranium tailings management require the design and use of the isolation area such that seepage of toxic materials into groundwater system would be eliminated or reduced to the maximum extent reasonably achievable.

Evaluation of existing, probable or potential environmental impacts is an integral part of the licensing and enforcement process for uranium recovery facilities. In accordance with Nuclear Regulatory Commission (NRC) regulations, environmental and engineering assessments are required to support licensing decisions on license applications, license renewals, proposed major modifications, emergency situations at existing uranium facilities and in some cases decommissioning plans for uranium recovery operations. The U. S. Nuclear Regulatory Commission's Office of Nuclear Material Safety and Safeguards (NRC/NMSS) required technical assistance in the assessment of groundwater impacts* of uranium recovery operations. These assessments of applicants' and others' proposals, the suitability of sites for uranium extraction, and the determination of impacts due to emergencies at existing facilities. The assessments may be used in the development of NRC/NMSS Staff Technical Position Papers which provide general guidance to applicants in various technical areas and will be used for subsequent applications.

B. WORK REQUIRED

1. General Description

The Contractor shall evaluate applicants' and others' proposals, make site visits, and shall provide environmental, hydrogeologic, and engineering assessments of impacts on groundwater from existing and proposed uranium recovery operations as they affect site suitability. Of major importance will be assessments of impacts due to seepage, leaching and migration of tailings and/or leaching solutions containing radionuclides and other factors, will be considered by the Contractor as input to the development of NRC/NMSS Staff Technical Position Papers on tailings management and impacts related to all forms of uranium extraction. An important responsibility of the Contractor will be the ability to respond in a timely fashion to an NRC request for an onsite investigation of uranium extraction facilities in the event of an emergency, as the need is identified by NRC. In summary, the work required is as listed:

1. The written evaluation of applicant and other proposals pertaining to tailings management, with respect to possible contamination of groundwater by constituents of tailings, and the transport of contaminants by groundwater.
2. Visits to sites designated by NRC, for the purpose of field investigation. The Contractor must respond to NRC requests for initiating site-visits within a 24-hour period from the time of the requests.
3. Based on the results of investigations stated in items 1 and 2, above, provide assessments of the suitability of various sites for uranium recovery operations.
4. Participate in the preparation of NRC/NMSS Staff Technical Position Papers concerned with site suitability investigations for uranium extraction facilities.

The work described in the following tasks will be required for the above four items.

NRC cannot predict the number of requests for assistance that will be made on the present Statement of Work (SOW). This SOW includes completion of existing work (begun under a subcontract arrangement with Argonne National Laboratory (ANL)) and new tasks. NRC estimates three (3) projects begun under the ANL subcontract will remain to be completed. Projects and tasks for Completion are:

- Project 1. Bear Creek Uranium Mill evaluation of placement of tailings above or below the water table in a specially excavated pit. (Requires Task 1 type effort specified below).
- Project 2. Cotter Corporation Uranium Mill evaluation of contaminant migration near Canon City, Colorado. (Requires tasks 1 and 4 type efforts specified below).
- Project 3. Federal-American Partners Uranium Mill investigation of the placement of tailings above or below the water table. (Requires task 1 and a possibility of task 4 type efforts specified below).

2. Specific Tasks

Task 1

Upon issuance of a task order by the NRC, the Project Officer will provide the Contractor with available information, applicant and other submittals, proposals, reports, and other documentation relevant to the request for assistance. It shall be the Contractor's responsibility to address the following items in performing Task 1, as requested by NRC:

- a. Become familiar with the information and documentation provided, and in the case of deficiencies, to identify and secure what additional information is required.
- b. Using information provided by NRC, as well as other information gathered independently by the Contractor (including the use of appropriate sub-contractors where necessary*), the Contractor shall become familiar with local and regional groundwater flow systems, geology, hydrostratigraphy, and hydrology, water quality data, water use, and any other parameters which bear on an analysis of the study area. The information may include, but not be limited to, groundwater flow patterns, hydrostratigraphic units, flow, depth, velocity, groundwater quality, seepage factors, drill hole and geophysical borehole logs, piezometer readings, laboratory data, in-situ permeability data, and distribution and dispersion coefficients.
- c. The Contractor shall assess the validity of the above information, with the approval of NRC shall apply the valid information to an independent assessment of site suitability for uranium extraction; or, in the case of an assessment of an existing facility, the Contractor shall apply such information to an independent assessment of groundwater contamination.

*Requires advance approval of subcontractor(s) by the Contracting Officer.

- d. The Contractor shall independently assess the potential for, or the extent of seepage, the eventual extent of groundwater contamination, a determination of whether or not seepage will or has affected human, livestock, or wildlife water supplies, and what the resultant impacts are or are expected to be. The Contractor's conclusions shall be applied to a determination of site suitability, or an assessment of occurring impacts.
- e. The Contractor shall consider present and future groundwater monitoring in the study area, and shall make recommendations concerning monitoring programs which can give reliable early and continued indication of seepage problems.
- f. The Contractor shall recommend mitigating actions where appropriate.

Task 2

When a request for site-visit assistance is made by NRC, the Contractor shall initiate such action within a 24-hour period or a period mutually agreed upon by NRC and the Contractor. NRC will specify the scope of the site-visit to be conducted which will depend on the situation. Such request may be issued orally but will be confirmed in writing by the Contracting Officer within three (3) working days.

Task 3

The Contractor shall participate in the development of NRC/NMSS Staff Technical Position Papers concerning site suitability investigations for uranium extraction facilities. This participation will include the screening evaluation, and assembly of information which has been gathered by NRC or the contractor during their assessments performed on individual sites.

Task 4

On some projects, it may be necessary to collect field data and perform laboratory analysis related to surface and groundwater impacts. This work may include, but not be limited to: drilling, soil sampling, surface and groundwater sampling, chemical and radionuclide analysis, geophysical logging, and laboratory and in-situ permeability testing. Some of this work may be completed through sub-contracts.*

* Requires advance approval of subcontractor(s) by the Contracting Officer.

As a minimum, the Contractor shall be able to measure the following constituents in water:

Alkalinity	Lead	Uranium
Arsenic	Manganese	Ra-226
Barium	Mercury	Th-230
Beryllium	Molybdenum	Pb-210
Boron	Nickle	Po-210
Cadmium	NO ₃	Gross alpha particle activity
Chloride	NO ₂	
Chromium	pH	
Cobalt	Selenium	
Conductivity	Silver	
Copper	SO ₄	
Iron	TDS	
	Zinc	

The Contractor shall not perform any work under this task without the specific written authorization of the contracting officer. Upon such a request, a separate cost proposal shall be submitted.

Task 5

The Contractor shall perform peer reviews of work performed by other NRC contractors on other groundwater projects particularly on those which are compelling and urgent because of imminent chemical, radiological, and hydrological hazards to the public or on projects which are geohydrologically unique to the Southwestern United States.

In cases of public exigency, where the NRC determines there has been inadequate review, NRC shall direct the Contractor to provide or make available to NRC those required services which will complete the needed work. The Contractor shall not perform any work under this task without the authorization of the contracting officer. This authorization, if given by telephone, shall be verified in writing no later than three (3) days from the date of the original authorization.

Task 6

The Contractor shall respond to public comments or agency (state or federal) comments on the Contractor's evaluations if requested by NRC. The Contractor shall also defend the evaluations in public hearings if requested by NRC.

Task 7

The Contractor shall maintain a complete file on the documentation, analyses, notes, and other written materials used for any work performed under Tasks 1 through 5. The Contractor shall be prepared to deliver this entire file to NRC at the request of NRC. In any case, the entire file shall be delivered to NRC at the expiration of the contract.

C. REPORTING REQUIREMENTS

Task 1

Within 21 days following the site visit carried out under task 1, The contractor shall prepare and submit a trip report to NRC which describes the problems investigated, characterizes the nature and extent of the investigation, defines the methods used, and states his conclusions and recommendations about the results of his investigation.

The contractor shall submit a draft evaluation report for each project with the following distribution.

Project Officer NMSS - five (5) copies
Office of the Director, NMSS (ATTN: Program Support) One (1) copy
Ms. Mary Jo Mattia, Contracting Officer - One (1) copy

Task 3

The contractor shall prepare a report on the results of the collection of field work and laboratory analysis as specified in task 3. In the event a sub-contractor is required the contractor will be responsible for incorporation of the sub-contractor's portion of the report into the overall task 3 report. This report shall contain an assessment of potential or actual surface and groundwater impacts as identified by his work in: drilling, soil sampling, surface and groundwater sampling, chemical and radionuclide analysis, geophysical logging, and laboratory and insitu permeability testing. Sections on the following will be required (unless otherwise specified by the project officer):

a. Operations and Mitigating Actions

(Non in situ leach mining applications)

- 1) Sources of liquid effluents
 - a) Non-radioactive
 - b) Radioactive
- 2) Control of liquid effluents
 - a) Non-radioactive
 - b) Radioactive
- 3) Restoration of aquifer (if specified in the Task Order)

(In situ leach mining applications)

- 1) Ore body description
- 2) Amenable to in situ leach mining
- 3) Well field description and operations

- 4) Sources of liquid effluents
 - a) Non-radioactive
 - b) Radioactive
 - 5) Control of liquid effluents
 - a) Non-radioactive
 - b) Radioactive
 - 6) Restoration of aquifer
- b. Environmental Impacts
- 1) Surface Water
 - 2) Groundwater
 - 3) Aquatic biota
- c. Monitoring Programs
- 1) Water
 - a) Preoperational
 - b) Operational
- d. Environmental Effects of Accidents (If specified in the Task Order)
- 1) Impoundment failure
 - 2) Pipeline failure
- e. Adequacy of diversion ditches and drainage channels (If specified in the Task Order).

The contractor shall submit a draft evaluation report for each project with the following distribution:

Project Officer, NMSS - five copies
Office of the Director, NMSS (ATTN: Program Support) -
one copy.
Ms. Mary Jo Mattia - Contracting Officer - one copy.

The draft evaluation report mentioned above shall be submitted to the Project Officer within 150 work days after project review has begun. On projects where additional information is not required, the time may be 45 days shorter. The Project Officer will then furnish comments on the draft report to the contractor. Such comments are not intended to prejudice the contractor's technical judgements, but to assure that the draft adequately addresses the work and is clearly and concisely written.

Based on these comments and within ten (10) work days of receipt of same, the contractor shall revise the draft and submit the final report in eleven (11) copies to:

Project Officer, NMSS - 8 copies plus (1) camera ready copy
Office of the Director, NMSS (ATTN: Program Support) - one copy.
Ms. Mary Jo Mattia, Contracting Officer - one copy.

Task 4 Report

The contractor shall prepare a report (when requested by the project officer) which details any deficiencies which he may have found in the "contractor review" conducted in task 4. In addition, the contractor will include in this report any recommendations which he feels NRC should consider in reworking inadequate contractor reports.

The contractor shall submit an evaluation report for each "Contractor Review" with the following distribution:

Project Officer, NMSS - five copies
Office of the Director, NMSS (ATTN: Program Support) - one copy.
Ms. Mary Jo Matlia, Contracting Officer - one copy

D. TRAVEL

The contractor shall travel to sites to view first hand the existing conditions, as described in detail in Tasks 1, 2, and 4.

E. It is anticipated that the contractor will be required to meet with NRC staff at the contractor's site.

F. NRC FURNISHED MATERIAL

In those cases where work is not required within a 24 hour notice, the NMSS Project Officer will supply the contractor with the applicant's original submittals as supplied by NRC by the applicant, within fifteen (15) days of the effective date of the contract for each identified project. If the Government-furnished property, suitable for its intended use, is not so delivered to the contractor, the Contracting Officer shall, upon timely written request by the contractor, and if the facts warrant such action, equitably adjust any affected provision of this contract pursuant to the procedures of the "Change" clause hereof.

In those case where work is required within a 24 hour notice, the contractor will begin work with the best information obtainable either from personal sources or from information which will be supplied by the applicant as directed by NRC.

ARTICLE II - TASK ORDERS

- A. Upon receipt of any task order for services issued hereunder by the Contracting Officer, the contractor pursuant to such task order shall furnish the necessary services of the type and at the prices as hereinafter provided in order to commence work as soon as possible (within ten days) after receipt of the order.

Task orders may be issued at the sole option of the NRC, and it is understood that the NRC undertakes no obligation hereby to issue task orders hereunder. The provisions of this arrangement shall govern all task orders issued hereunder.

- B. Each task order for services shall be issued by the Contracting Officer or his authorized representative and shall be in writing, dated, sequentially numbered and shall include the following as applicable:

- 1) Scope of Work
- 2) Objectives of the Task
- 3) Statement of Work
- 4) Reporting Requirements and Other Deliverables
- 5) Desired Completion Date
- 6) Special Instructions or Requirements, (if any)
- 7) Place of Performance
- 8) Maximum Cost Limitation

- C. A copy of each task order shall be made a part of the contract file.

- D. NRC shall provide the contractor with drawings, specifications, management plans, experimental requirements, cost estimates, schedules and other information required to perform an independent evaluation of the project for each task order issued hereunder if applicable.

This material is provided for such information and assistance as it may provide the contractor with respect to the general scope of work to be performed. Only the matter which is referred to above will be furnished by the Government.

ARTICLE III - PERIOD OF PERFORMANCE

The period of performance shall commence with the effective date of award and shall continue for a period of two (2) years thereafter, subject to the availability of funds as further set forth under ARTICLE VII. All task orders issued during this period shall be completed at the same rates set forth under ARTICLE IV - COMPENSATION FOR SERVICES.

ARTICLE IV - COMPENSATION FOR SERVICES

- A. Except as provided in Article V "Ceilings" paragraph B. below, in full and complete payment for services rendered to the Commission on any task order placed under this contract, including profit and all items or kinds of expenses related directly or indirectly to performance of such task order, the contractor shall be compensated for its services hereunder upon the basis of hourly charges for stated classifications of its personnel for time actually spent by each such employee or consultant in performance of the services rendered under the contract according to the following schedule:

<u>Labor Category</u>	<u>Ceiling Estimated Hours</u>	<u>Hourly* Rate</u>	<u>Estimated Total Amount</u>
Hydrogeologist	640	\$58.75	\$37,600.00
Geologist Engineer	640	58.75	37,600.00
Draftsperson	576	8.00	4,608.00
Typists	480	7.00	3,360.00
Total Estimated Hours: 2,336		Total Estimated Amount: \$83,168.00	

*The negotiated basic contract hourly rates above are regarded as "loaded rates" inasmuch as they include full consideration for fringe benefits, general and administrative expenses, and profit.

- B. The ceiling price to the Government for performance of the work specified in Article I herein shall not exceed \$120,328.00.
- C. Under the terms of this Labor-Hour Contract, the contractor agrees that the work to be performed under Article I shall be accomplished within the total ceiling number of hours (2,336 hours) unless otherwise modified by the Contracting Officer. The Contractor may vary the number of labor hours used among the labor categories specified in paragraph b. above but the total labor hours effort may not exceed 2,336 hours nor the ceiling amount for labor hours established as \$83,168.00.

Any costs incurred in excess of the ceiling amount for labor hours established as \$83,168.00 shall be borne by the contractor.

- D. The costs incurred under task number four (4) for purchase or lease of equipment and subcontractor's cost is estimated at \$20,000.00.
- E. For all other direct costs, the contractor shall be reimbursed only as described below:

- 1) For periods of travel as directed by the Contracting Officer or his authorized representative, travel costs shall not exceed \$14,160.00 without the prior approval of the Contracting Officer. Such costs shall be included in the issued task orders.

The contractor will be reimbursed for the following reasonable domestic travel costs incurred directly and specifically in the performance of this contract and accepted by the Contracting Officer.

- a. Per diem shall be reimbursed at a daily rate not to exceed \$50.00. The per diem amount is comprised of lodging expense, meals and miscellaneous expense.
 - b. The cost of travel by privately owned automobile shall be reimbursed at the rate of 22.5¢ per mile.
 - c. The cost of travel by rented automobile shall be reimbursed on a reasonable actual expense basis.
 - d. All common carrier travel reimbursable hereunder shall be via economy class rates when available. If not available, reimbursement vouchers will be annotated that economy class accommodations were not available. First-class air travel is not authorized.
 - e. Receipts are required for common carrier transportation, lodging and miscellaneous items in excess of \$15.00.
- 2) The expenses for long distance telephone charges not reflected in the overhead rate or otherwise in the hourly rate above, and incurred in the performance of the work hereunder, will be reimbursed at actual cost. The estimated amount for all telephone costs incurred is established at \$3,000.00.

While the contractor shall be paid for each man-hour of performance, travel and telephone costs as provided for in paragraphs 1 and 2 above, it is understood and agreed that the total amount to be paid to the contractor shall not exceed the ceiling amount of \$120,328.00 set forth in paragraph a.

ARTICLE V - REQUEST FOR PRIOR AUTHORIZATION OF CERTAIN DIRECT COSTS

Prior authorization in writing by the Contracting Officer is required for the following costs:

- 1) Purchase or lease of any or all equipment for use under this contract.
- 2) The utilization subcontractor(s)

The Contractor shall submit written notice to the Contracting Officer within fifteen (15) days before leasing or purchase of any equipment under this contract. In addition, a "Lease versus Buy" analysis shall be provided by the Contractor before the leasing of any equipment.

ARTICLE VI - TASK ORDER CEILINGS

Costs ceilings will be placed in each task order for performance of work under this contract. Such ceilings may be increased by the Contracting Officer or his authorized representative in their discretion from time to time by notice to the contractor in writing. The contractor shall promptly notify the Contracting Officer in writing whenever it believes that the then pertinent ceiling for any task order is insufficient. When and if the amount(s) paid and payable to the contractor under such pertinent task order shall equal the then pertinent ceiling, the contractor shall not be expected to perform further unless the Contracting Officer increases such ceiling in an amount sufficient to cover additional work thereunder. The Government shall not be obligated to pay the contractor any amount in excess of such ceiling. If and to the extent that such ceiling has been increased, any cost incurred by the contractor in performance in excess of the ceiling prior to its increase shall be allowable to the same extent as if such costs had been incurred after such increase in the ceiling.

ARTICLE VII - PAYMENTS

Payment shall be made in accordance with Clause 7 of the General Provisions entitled, "Payments" and as follows upon the submission of properly certified invoices or vouchers approved by the Contracting Officer:

A. Time Rate

- (1) The amounts computed by applying the appropriate time rate or rates set forth herein to the number of direct labor hours of work performed, which rates shall include wages, overhead, general and administrative expense and profit. Fractional parts of an hour shall be payable on a prorated basis.
- (2) Invoices shall be prepared in sufficient detail to show the number of hours of work performed on each task order according to the various classifications of employees set forth in Article IV, paragraph 1.

- ### B. Payments by the Commission based on the foregoing provisions of this contract will be made as promptly as is reasonably practicable after submission to the Contracting Officer of vouchers and such other supporting documents or evidence as the Contracting Officer may require. Said payments shall be tentative and subject to subsequent audit and adjustment to assure that payment is properly effected in accordance with the provisions of this contract and the cost principles in FPR 1-15. The contractor shall substantiate vouchers by evidence of actual payment or such other substantiation approved by the Contracting Officer. At any time or time prior

to final payment under this contract the Contracting Officer may cause to be made audit of the invoices or vouchers and substantiating material as shall be deemed necessary. Each payment therefore made shall be subject to reduction to the extent of amounts which are found by the Contracting Officer not to have been properly payable, and shall also be subject to reduction for overpayments, or to increase for underpayments, on preceding invoices or vouchers.

The contractor shall be paid in accordance with the amounts computed by applying the appropriate time rate or rates set forth in ARTICLE IV, COMPENSATION FOR SERVICES, to the number of direct labor hours of work performed, which rates shall include wages, overhead, general and administrative expenses and profit. Fractional parts of an hour shall be payable on a prorated basis. Payments will normally be made monthly, but may be varied by the Contracting Officer if conditions so warrant.

Invoices shall be prepared in sufficient detail to show the number of hours of work performed on each task order according to the various classifications of employees set forth in Article IV, paragraph 1.

- C. Financial Settlement. Prior to final payment under this contract, the contractor and each assignee under this contract whose assignment is in effect at the time of final payment under this contract shall execute and deliver:
- (a) An assignment to the Government in form and substance satisfactory to the Contracting Officer of refunds, rebates, credits, or other amounts (including any interest thereon) properly allocable to costs for which the contractor has been reimbursed by the Government under this contract; and
 - (b) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, subject to the following exceptions:
 - (1) Specified claims in stated amounts or in estimated amounts where the amounts are not susceptible of exact statement by the contractor;
 - (2) Claims, together with reasonable expenses incidental hereto, based upon liabilities of the contractor to third parties arising out of performance of this contract: Provided, That such claims are not known to the contractor on the date of the execution of the release: And provided further, That the contractor gives notice of such claims in writing to the Contracting Officer not more than six (6) years after the date of the release or the date of any notice to the contractor that the Government is prepared to make final payment, whichever is earlier; and

- (3) Claims for reimbursement of costs (other than expenses of the contractor by reason of any indemnification of the Government against patent liability), including reasonable expenses incidental thereto, incurred by the contractor under the provisions of this contract relating to patents.

The contractor agrees that any refunds, rebates or credits (including interest thereon) accruing to or received by the contractor, which arise under this contract and for which the contractor has received reimbursement, shall be paid by the contractor to the Commission. The contractor shall execute and deliver, at the time of and as a condition precedent to final payment under this contract, an assignment to the Commission of any such refunds, rebates or credits (including any interest thereon) in form and substance satisfactory to the Commission.

- (4) Cost Information. The contractor shall maintain current cost information adequate to reflect the cost of performing work under this contract at all times while the work is in progress, and shall prepare and furnish to the Government such written estimates of cost and information in support thereof as the Contracting Officer may request.

- (5) Records. The contractor shall keep and maintain records and books of account which show accurately, and in an adequate manner, the basis for receiving compensation under this contract. The contractor shall preserve said records and books of account for a period of three (3) years after the date of final payment under this contract. The Commission shall at all reasonable times, prior to and after the date of final payment under this contract, have the right to examine and make copies of such records and books.

(a) Subcontracts

(1) The cost of subcontracts which are authorized pursuant to the "Subcontracts" clause hereof shall be reimbursable costs hereunder, provided such costs are consistent with subparagraph (2) below. Reimbursable cost in connection with subcontracts shall be limited to the amounts actually required to be paid by the Contractor to the subcontractor and shall not include any costs arising from the letting, administration or supervision of performance of the subcontract, which costs are included in the hourly rate or rates payable under (a)(1) above.

(2) The Contractor shall, to the extent of his ability, procure materials at the most advantageous prices available with due regard to securing prompt delivery of satisfactory materials, and take all cash and trade discounts, rebates, allowances, credits, salvage, commissions, and other benefits. When unable to take advantage of such benefits, it shall promptly notify the Contracting Officer to that effect, and give the reason therefore. Credit shall be given to the Government for cash and trade discounts, rebates, allowances, credits, salvage, the value of resulting scrap when the amount of such scrap is appreciable, commissions, and other amounts which have been

accrued to the benefit of the Contractor, or would have so accrued except for the fault or neglect of the Contractor. Such benefits lost through no fault or neglect on the part of the Contractor, or lost through fault of the Government, shall not be deducted from gross costs.

(b) It is estimated that the total cost to the Government for the performance of this contract will not exceed the ceiling price set forth in the Schedule, and the Contractor agrees to use his best efforts to perform the work specified in the Schedule and all obligations under this contract within such ceiling price. If at any time the Contractor has reason to believe that the hourly rate payments and other approved costs which will accrue in the performance of this contract in the next succeeding thirty (30) days, when added to all other payments and costs previously accrued, will exceed eighty-five percent (85%) of the ceiling price then set forth in the Schedule, the Contractor shall notify the Contracting Officer to that effect giving his revised estimate of the total price to the Government for the performance of this contract, together with supporting reasons and documentation. If at any time during the performance of this contract, the Contractor has reason to believe that the total price to the Government for the performance of this contract will be substantially greater or less than the then stated ceiling price, the Contractor shall so notify the Contracting Officer, giving his revised estimate of the total price for the performance of this contract, together with supporting reasons and documentation. If at any time during the performance of the contract, the Government has reason to believe that the work to be required in the performance of this contract will be substantially greater or less than the stated ceiling price, the Contracting Officer will so advise the Contractor, giving the then revised estimate of the total amount of effort to be required under the contract.

(c) The Government shall not be obligated to pay the Contractor any amount in excess of the ceiling price set forth in the Schedule, and the Contractor shall not be obligated to continue performance if to do so would exceed the ceiling price set forth in the Schedule, unless and until the Contracting Officer shall have notified the Contractor in writing that such ceiling price has been increased and shall have specified in such notice a revised ceiling which shall thereupon constitute the ceiling price for performance under this contract. When and to the extent that the ceiling price set forth in the Schedule has been increased, any hours expended and material costs incurred by the Contractor in excess of the ceiling price prior to this increase shall be allowable to the same extent as if such hours expended and material costs had been incurred after such increase in the ceiling price.

(d) At any time or times prior to final payment under this contract the Contracting Officer may cause to be made such audit of the invoices or vouchers and substantiating material as shall be deemed necessary. Each payment theretofore made shall be subject to reduction to the extent of amounts which are found by the Contracting Officer not to have been properly payable, and shall also be subject to reduction for overpayments, or to increase for underpayments, on preceding invoices or vouchers. Upon receipt and approval of the voucher or invoice designated by the Contractor as the "completion voucher" or "completion invoice" and substantiating material, and upon compliance by the Contractor with all provisions of this contract (including, without limitations, provisions relating

provisions of (f) and (g) below, the Government shall as practicable pay any balance due and owing the Contractor. Receipt or voucher, and substantiating material, shall be submitted as promptly as may be practicable following completion of the contract, but in no event later than one (1) year (or such time as the Contracting Officer may, in his discretion, approve in writing) after such completion.

and each assignee, under an assignment entered into under this contract, at the time of final payment under this contract, shall be discharged, as a condition precedent to final payment, of and from all liabilities, obligations, and claims arising out of and from this contract, subject only to the following exceptions:

1. Claims in stated amounts, or in estimated amounts where the claims are not susceptible of exact statement by the Contractor;

2. Claims, together with reasonable expenses incidental thereto, based on the liabilities of the Contractor to third parties arising out of performance of this contract, which are not known to the Contractor at the date of the execution of the release, and of which the Contractor gives notice in writing to the Contracting Officer not more than six (6) months after the date of the release or the date of any notice to the Contractor that the Government is prepared to make final payment, whichever is earlier; and

3. Claims for reimbursement of costs (other than expenses of the Contractor) on account of its indemnification of the Government against patent infringement (including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of this contract relating to such claims).

The Contractor agrees that any refunds, rebates, or credits (including any amount accruing to or received by the Contractor or any assignee, which represents the materials portion of this contract and for which the Contractor is entitled to reimbursement, shall be paid by the Contractor to the Government, in effect at the time of final payment under this contract, shall be delivered, at the time of and as a condition precedent to final payment under this contract, an assignment to the Government of such refunds, rebates, or credits (including any interest thereon) in form and substance acceptable to the Contracting Officer.

OVERTIME

or double time will be used on the work without the prior written approval of the Contracting Officer.

ARTICLE IX - OBLIGATIONS

- (a) The amount presently obligated hereunder is \$65,000.00 which is estimated to cover a period of performance for one year. The remaining one year period of performance will be subject to the availability of funds and it is contemplated that additional funds will be allotted to this contract.
- (b) Limitation of Obligation. Payments by the Government under this contract on account of allowable costs shall not in the aggregate exceed the amount obligated hereunder.
- (c) Notices - Contractor Excused Pending Increase When Obligation is Reached. When the contractor has reason to believe that the total cost of the work under this contract will be greater or substantially less than the amount obligated with respect to this contract, the contractor shall promptly notify the Contracting Officer in writing when the aggregate of expenditures plus outstanding commitments and liabilities allowable under this contract is equal to ninety percent (90%) (or such other percentage as the Contracting Officer may from time to time establish by notice to the contractor) of the amount then obligated with respect to this contract. When such expenditures and outstanding commitments and liabilities equal one hundred percent (100%) of such amount, the contractor shall immediately notify the Contracting Officer and shall make no further commitments or expenditures (except to meet existing commitments and liabilities) and shall be excused from further performance of the work unless and until the Contracting Officer thereafter shall increase the amount obligated with respect to this contract.
- (d) Government's Right to Terminate Not Affected. The giving of any notice by either party under this article shall not be construed to waive or impair any right of the Government to terminate the contract under the provisions of this article entitled, "Termination for Default or for Convenience of the Government".

ARTICLE X - PRIVATE USE AND PROTECTION OF UNCLASSIFIED GOVERNMENT INFORMATION

- A. Except as specifically authorized by this contract, or as otherwise approved by the Contracting Officer, records or other information, documents and material furnished by the Commission to the contractor in the performance of this contract, or information developed by the contractor in the course of the work hereunder, shall be used only in connection with the work performed under this contract. The contractor shall, upon completion or termination of this contract, transmit to the Commission all records or other information, documents and material, and any copies thereof, furnished by the Commission to the contractor or developed by the contractor in the performance of this contract.

- B. The contractor shall be responsible for safeguarding from unauthorized disclosure any information or other documents and material exempt from public disclosure by the Commission's regulations and made available to the contractor in connection with the performance of work under this contract. The contractor agrees to conform to all regulations, requirements, and directions of the Commission with respect to such material.
- C. The contractor's duties under this clause shall not be construed to limit or affect in any way the contractor's obligation to conform to all security regulations and requirements of the Commission pertaining to classified information and material.

ARTICLE XI - KEY PERSONNEL

Pursuant to Clause No. 40 -- Key Personnel, the following individuals are considered to be essential to the successful performance of the work hereunder and shall not be replaced without the prior approval of the Contracting Officer. In such event, the contractor agrees to substitute persons possessing substantially equal abilities and qualifications satisfactory to the Contracting Officer.

Dr. Roy E. Williams - Hydrogeologist

Dr. Muriel S. Robinette - Geologist Engineer

ARTICLE XII TECHNICAL DIRECTION

The following authorized representative will represent the Government for the purpose of this contract:

Mr. Leroy Person (301) 427-4545.

The Project Officer is responsible for: (1) Monitoring the Contractor's technical progress, including the surveillance and assessment of performance and recommending to the Contracting Officer changes in requirements; (2) interpreting the statement of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this contract; and (5) assisting the Contractor in the resolution of technical problems encountered during performance. Within the preview of this authority, the representative is authorized to approve payment vouchers for supplies/services required under the contract. The Contracting Officer is responsible for directing or negotiating any changes in terms, conditions, or amounts cited in the contract.

For guidance from the Project Officer to the Contractor to be valid, it must: (1) be consistent with the description of work set forth in this contract; (2) not constitute new assignment of work or change to the expressed terms, conditions, or specifications incorporated into this contract; (3) not constitute a basis for an extension to the period of performance or contract delivery schedule; (4) not constitute a basis for any increase in the contract price.

If the Contractor receives guidance from the Project Officer which the Contractor feels is not valid under the criteria cited above, the Contractor shall immediately notify the Project Officer. If the two are not able to resolve the question within 5 days, the Contractor shall notify the Contracting Officer.

ARTICLE XIII

BILLING INSTRUCTIONS

- A. Form. Invoices shall be submitted in an original and four (4) copies on the Contractor's letterhead, invoice, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other Than Personal" and Continuation Form 1035. These forms are available from the U.S. Government Printing Office, 710 North Capitol Street, N.W., Washington, DC 20801.
- B. Destination. Invoices shall be submitted in the form and number prescribed above in Paragraph A to the following address:
- U.S. Nuclear Regulatory Commission
Division of Accounting; Office of the Controller
Attn: GOV/COM Accounts Section
Washington, DC 20555
- C. Frequency. The Contractor shall submit invoices as frequently as once each month, if desired, unless more frequent billing is authorized by the Contracting Officer.
- D. Content
1. Name and address to which payment is to be sent
 2. Voucher #
 3. Date of Voucher
 4. Contract number and date
 5. Description of articles or services, labor categories, applicable hourly rates, other costs incurred. Detail hours worked by labor category, total amount for each labor category, and total amount of voucher.
 6. Indicate period covered by invoice.
 7. Where invoicing is for more than one task order effort, segregate costs associated with each task order.
 8. Final invoice for each task order marked: "Task order #_____. Final Invoice"
 9. Final invoice under contract marked: "Contract #_____. Final Invoice"

ARTICLE XIV GENERAL PROVISIONS FOR FIXED PRICE SUPPLY CONTRACTS (Revised 7/30/80)

- A. The Contract shall be subject to the Fixed Price Supply Contract General Provisions, dated June 30, 1980, attached hereto, which incorporates the Standard Form 32 (Rev 4-75 General Provisions, June 1976).

FPR Changes and NRC Additions to Standard Form 32 General Provisions if further modified as follows:

1. Clause No. 32 entitled, "Minority Business Enterprises Subcontracting Program" is deleted in its entirety.
2. Clause No. 33 entitled, "Preference for U. S. Flag Air Carriers" is deleted in its entirety.
3. The Clause entitled, "Price Reduction for Defective Cost or Pricing Data," attached hereto and forming a part hereof, is added as Clause No. 47
4. The Clause entitled, "Audit," attached hereto and forming a part hereof, is added as Clause No. 48
5. The Clause entitled, "Subcontractor Cost or Pricing Data," attached hereto and forming a part hereof, is added as Clause No. 49
6. The Clause entitled, "Privacy Act," attached hereto and forming a part hereof, is added as Clause No. 50