

1. CONTRACT (Proc. Iss. Ident.) NO. **NRC-02-81-065** 2. EFFECTIVE DATE **7/22/81** 3. REQUISITION/PURCHASE REQUEST/PROJECT NO. **RFPA NMS-81-065** 4. CERTIFIED FOR NATIONAL DEFENSE UNDER BDSA REG. 2 AND/OR DMS REG. 1. RATING: _____

5. ISSUED BY **US Nuclear Regulatory Commission** 6. ADMINISTERED BY **US Nuclear Regulatory Commission** 7. DELIVERY FOB DESTINATION OTHER (See below)

Division of Contracts
 Washington, DC 20555

8. CONTRACTOR NAME AND ADDRESS **S.S. Papadopoulos & Associates** 9. DISCOUNT FOR PROMPT PAYMENT _____

(Street, city, county, State, and ZIP code) ATT: Steven Larson 6218 Montrose Road Rockville, Maryland 20852

10. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN BLOCK _____

11. SHIP TO/MARK FOR **US Nuclear Regulatory Commission** 12. PAYMENT WILL BE MADE BY **US Nuclear Regulatory Commission**

ATT: Robert Starmer 90555 Office of the Controller
 Program Support Br.-Office of NMSS Washington, DC 20555
 Washington, DC 20555

13. THIS PROCUREMENT WAS ADVERTISED, NEGOTIATED, PURSUANT TO 10 U.S.C. 2304 (a)(1) 41 U.S.C. 252 (c)(1)

14. ACCOUNTING AND APPROPRIATION DATA
 B & R No. 50-19-03-02 Fin No. B-7343 Appropriation Symbol: NA \$6440.00

15. ITEM NO.	16. SUPPLIES/SERVICES	17. QUANTITY	18. UNIT	19. UNIT PRICE	20. AMOUNT
	Training Course on Use of U.S. Geological Survey Ground-Water Flow Models				\$ 6440.00

21. TOTAL AMOUNT OF CONTRACT \$ **6440.00**

CONTRACTING OFFICER WILL COMPLETE BLOCK 22 OR 26 AS APPLICABLE

22. CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 3 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. AWARD (Contractor is not required to sign this document.) Your offer 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 **S.S. Papadopoulos & Associates** 27. UNITED STATES OF AMERICA

BY *[Signature]* BY *[Signature: Joyce Perlman]*
 (Signature of person authorized to sign) (Signature of Contracting Officer)

24. NAME AND TITLE OF SIGNER (Type or print) **Stavros S. Papadopoulos** 25. DATE SIGNED **7/13/1981** 28. NAME OF CONTRACTING OFFICER (Type or print) **Joyce Perlman** 29. DATE SIGNED **7/22/81**

President

ARTICLE I - SCOPE OF WORK:

- A. The contractor shall furnish the necessary, personnel, facilities, and materials to perform the following task:

The U.S.G.S. finite-difference 2-Dimensional and 3-Dimensional Flow Programs (ref. (a) Finite-Difference Model for Aquifer Simulation in Two Dimensions with Results of Numerical Experiments - U.S.G.S. Techniques of Water-Resources Investigation, Book 7, Chapter C1; (b) Documentation of Finite-Difference Model for Simulation of Three-Dimensional Ground-Water Flow - U.S.G.S. Open-File Report 75-438 and Supplement to Open-File Report 75-438) shall be presented in a three-day course designed and given by Mr. Steven P. Larson of the contractors staff and approved by the NRC Project Officer.

The course shall cover the following topics:

1. Theoretical development;
2. Practical considerations for application;
3. Limitations;
4. Interpretation of output;
5. Deck set up; and
6. Simulation examples, such that each participant can set-up and run one simulation for each of 2-D horizontal, 2-D vertical and 3-D cases.

The course shall be held at the NRC offices in Silver Spring, Maryland. Approximately twelve (12) NRC personnel are expected to attend. An appropriate text book and/or notes shall be supplied by the contractor.

B. Meetings:

The contractor shall schedule seven trips to NRC in Silver Spring, Maryland as directed by the NRC Project Officer and will include a meeting before the course is presented to finalize plans and review the proposed course materials.

All meetings shall be documented by the contractor and the documentation transmitted to the NRC Project Officer within one week of said meeting. These trips are not expected to exceed one day in duration. Meeting dates to be determined by NRC and contractor.

C. Reporting Requirements:

The contractor shall supply NRC with a final report consisting of a complete set of all course materials; course outline, lecture notes, visual aids used, and example problems with results. The contractor shall submit the course outline, course notes and problems in the form of a training manual.

A preliminary draft of the course materials shall be submitted to the NRC for approval by the Project Officer at least one week prior to the first course session. This draft, after approval by the Project Officer, shall be used for the course. Participants in the course will provide comments on the course materials during the last session of the course. The final draft shall have been revised to include comments from the Project Officer, and course participants, those comments to have been submitted by close of business on the day after the last day of instruction. The contractor shall submit the final report in eleven copies (including one camera-ready copy) to:

US Nuclear Regulatory Commission
ATT: Robert Starmer 905SS
Program Support Branch
Office of Nuclear Material Safety & Safeguards
Washington, DC 20555

One copy of the final report shall be submitted to the following:

US Nuclear Regulatory Commission
ATT: Ms. Joyce Perlman, Contracting Officer
Small Purchases Section, ACB 286SS
Division of Contracts
Washington, DC 20555

US Nuclear Regulatory Commission --
ATT: Division of Technical Information
and Document Control
Washington DC 20555

US Nuclear Regulatory Commission
ATT: John B. Martin, Director
Division of Waste Management 905SS
Washington, DC 20555

US Nuclear Regulatory Commission
Office of Nuclear Material Safety & Safeguards
ATT: Program Support Branch 905SS
Washington, DC 20555

The above reports shall be submitted before the end of the six-week performance period.

ARTICLE II - PERIOD OF PERFORMANCE

Performance under this contract will be for a period of six weeks from date of contract award at which time all work shall have been completed.

ARTICLE III - CONSIDERATION

In full consideration of the contractor's performance hereunder, the NRC shall pay the contractor a fixed-price of \$6440.00.

ARTICLE IV - OBLIGATION

The amount presently obligated by the NRC with respect to this contract is \$6440.00.

ARTICLE V- PAYMENT

Payment shall be made in accordance with Clause 2 of the General Provisions entitled "Payments" as soon as practicable after completion and acceptance of all of the work, upon submission by the Contractor of voucher(s) in a form satisfactory to the Contracting Officer, provided, however, that said payment(s) shall not be deemed to prejudice any rights which the Government may have by law or under other provisions of this contract.

ARTICLE VI - PROJECT OFFICER

Robert Starmer is hereby designated as the Contracting Officer's authorized representative (hereinafter called Project Officer) for technical aspects of this contract. The Project Officer is not authorized to approve or request any action which results in or could result in an increase in contract cost; or terminate, settle any claim or dispute arising under the contract; or issue any unilateral directive whatever. :

The Project Officer is responsible for: (1) monitoring the Contractor's technical progress, including surveillance and assessment of performance, and recommending to the Contracting Officer changes in requirements; (2) interpreting the scope 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 purview of this authority, the Project Officer is authorized to review all costs requested for reimbursement by contractors and submit recommendations for approval, disapproval, or suspension for supplies/services required under this 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 the 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; and, as stated above, (4) not constitute a basis for any increase in the contract cost.

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 Project Officer and the contractor are not able to resolve the questions within five days, the contractor shall notify the Contracting Officer.

ARTICLE VII - DISSEMINATION OF CONTRACT INFORMATION

The contractor shall not publish, permit to be published, or distribute for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this contract without the prior written consent of the Contracting Officer. (Two copies of any material proposed to be published or distributed shall be submitted to the Contracting Officer.)

ARTICLE VIII - SPECIAL PROVISIONSVIII.1 GOVERNMENT FURNISHED MATERIALS

The NRC shall provide a copy of the Division of ADP Support's Computer User's Guide if needed by the contractor. The NRC shall provide meeting facilities, audio-visual equipment, and computer facilities at the discretion of the NRC Project Officer.

VIII.2 KEY PERSONNEL

For the purpose of Clause 26 of the General Provisions, Steven P. Larson is identified as being essential to the work being performed.

ARTICLE IX - GENERAL PROVISIONS

The contract is subject to the Fixed Price Research and Development Contracts Under \$10,000.00, dated November 14, 1977, which incorporates the FPR Changes and Additions and NRC Additions, attached hereto and made a part hereof.

Clause 14 entitled "Patent Rights - Acquisition by the Government" is deleted in its entirety.