

1. CONTRACT (Proc. Inst. Ident.) NO. NRC- 02-79-038		2. EFFECTIVE DATE 10/24/78		3. REQUISITION/PURCHASE REQUEST/PROJECT NO. NMS-79-038		4. CERTIFIED FOR NATIONAL DEFENSE UNDER BDSA 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 FOB DESTI- NATION OTHER (See below)			
8. CONTRACTOR NAME AND ADDRESS Mason & Hanger-Silas Mason Co., Inc. 200 W. Vine Street Lexington, KY 40507		9. DISCOUNT FOR PROMPT PAYMENT		10. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN BLOCK 12			
11. SHIP TO/MARK FOR U.S. Nuclear Regulatory Commission Office of Nuclear Material Safety & Safeguards Washington DC 20555, Attn: Tom R. Allen		12. PAYMENT WILL BE MADE BY U.S. Nuclear Regulatory Commission Office of the Controller Washington DC 20555		13. THIS PROCUREMENT WAS <input type="checkbox"/> ADVERTISED, <input checked="" type="checkbox"/> NEGOTIATED, PURSUANT TO: <input type="checkbox"/> 10 U.S.C. 2304 (a)() <input checked="" type="checkbox"/> 41 U.S.C. 252 (c)(3)			
14. ACCOUNTING AND APPROPRIATION DATA 50-19-02-06 B-6448-9 \$9,801.00							
15. ITEM NO.	16. SUPPLIES/SERVICES	17. QUANTITY	18. UNIT	19. UNIT PRICE	20. AMOUNT		
	"Central Alarm Station and Secondary Alarm Station Design "						
21. TOTAL AMOUNT OF CONTRACT \$9,801.00							
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 gov- erned 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 Mason & Hanger-Silas Mason Co., Inc. (Signature of person authorized to sign)				27. UNITED STATES OF AMERICA BY Dora J. Hargett (Signature of Contracting Officer)			
24. NAME AND TITLE OF SIGNER (Type or print) R. B. Jewell, President		25. DATE SIGNED 10/31/78		28. NAME OF CONTRACTING OFFICER (Type or print) Dora J. Hargett		29. DATE SIGNED 11/10/78	

ARTICLE I - SCOPE OF WORK

The contractor shall furnish the necessary qualified personnel, facilities, materials and services to perform the tasks described below to provide draft Central Alarm Station (CAS) and Secondary Alarm Station (SAS) in guidance required in the proposed Upgrade Safeguards Rule for Fuel Cycles 1 and 2.

Three principal tasks will be performed under this contract. The first task will be to review the proposed regulations and identify specific requirements pertaining to the design and operation of CAS and SAS. The second task will further identify those requirements which should be discussed in licensee guidance documents but are not addressed in the proposed regulations. The third task will discuss the contractor's recommendations in a draft technical report for designing and operating CAS and SAS that will meet the proposed NRC requirements.

TASK 1

The Contractor shall review the proposed Upgrade Safeguards Rule for purposes of identifying those requirements which may affect the design and operation of the CAS and SAS. These specific areas shall include, but are not limited to:

- locations requirements for CAS and SAS
- barrier and hardening requirements for CAS and SAS
- communication requirements for CAS and SAS
- alarm and surveillance equipment requirements for CAS and SAS
- redundancy requirements between the CAS and SAS
- procedural or operational requirements that relate to the CAS and SAS.

Task 2

The Contractor shall review the identified proposed upgrade requirements of TASK 1 and identify any additional areas which would require guidance to allow clear licensee understanding of the regulations. Typical topic areas shall include, but are not limited to the following:

- interior design considerations of CAS and SAS
- communication antenna design
- egressing and ingressing signal, power and communication lines
- equipment maintenance considerations
- operations and procedures

Task 3

The contractor shall prepare a draft report on the design and operation of the CAS and SAS. This report shall discuss each of the requirements and areas identified in Task 1 and Task 2, and provide methods for meeting these requirements with the rationale, where applicable, for each method. Drawings and graphs shall be used, if needed, for better understanding. The format and reader level of the draft shall generally conform to attached "Format".

Reporting & Reports

The Contractor shall furnish reports to the Contracting Officer's authorized representative as follows:

Progress Reports

As the work progresses, the contractor shall provide informal comments, recommendations, and progress assessments for review. These activities may take the form of oral discussion, marked up drafts for NRC review, or reports in the form of memo or letters to the NRC project manager. A final draft report shall be submitted to the NRC prior to December 15, 1978.

Meetings

During the course of this work, cognizant contractor personnel shall attend two (2) project coordination meetings with the project manager at the NRC offices in Rockville, Md. The project manager may call impromptu meetings at the contractor's facility as necessary. Times and dates for all meetings will be as mutually agreed between the project manager and the contractor.

ARTICLE II - PERIOD OF PERFORMANCE

The period of performance for this effort will commence on October 24, 1978 and all work shall be completed December 15, 1978.

ARTICLE III - CONSIDERATION

In full consideration of the Contractor's performance hereunder, NRC shall pay the contractor the lump sum of 9,801.00.

ARTICLE IV - OBLIGATIONS

The amount presently obligated by the NRC with respect to this contract is \$9,801.00.

ARTICLE V - PAYMENT

Payment shall be made in accordance with Clause 2 of the General Provisions entitled "Payment" 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 - SPECIAL PROVISIONS

VI.1 CONTRACTING OFFICER'S AUTHORIZED REPRESENTATIVE (COAR)

Performance of the work hereunder shall be subject to the technical instructions issued by the U.S. Nuclear Regulatory Commission. The technical instructions shall be signed by the COAR.

The COAR is responsible for:

- (1) monitoring the Contractor's technical progress, including the surveillance and assessment or performance and recommending to the Contracting Officer changes in requirement;
- (2) interpreting the statement of work;
- (3) performing technical evaluation as required;
- (4) performing technical inspections and acceptances required by this contract;
- (5) assisting the Contractor in the resolution of technical problems encountered during performance.

Within the purview of this authority, the COAR 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 COAR 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 of 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 COAR which the Contractor feels is not valid under the criteria cited above, the Contractor shall immediately notify the COAR. If the COAR and the Contractor are not able to resolve the questions within five days, the Contractor shall notify the Contracting Officer.

VI.2 - Government Furnished Materials

Upon execution of this contract NRC shall provide to the Contractor reports and information dealing with NRC CAS/SAS policy which will aid in the assembly of the draft report. The NRC shall also provide copies of the Proposed Physical Protection Upgrade Rule for reference.

VI.3 - Key Personnel

For the purposes of Clause 25 of the General Provisions H. Joel Wait is identified as being essential to the work being performed.

VI.4 - Inspection and Acceptance

Acceptance of the services and reports to be delivered herein will be made by the COAR

VI.5 - 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 VII - GENERAL PROVISIONS

This contract is subject to the Fixed Price Research & Development contracts under \$10,000 dated November 14, 1977 which incorporated the FPR Changes and Additions and NRC Additions, attached hereto and made a part hereof.

Clause 14, entitled "Patent Rights, is deleted in its entirety.

FORMAT

REPORT NAME: _____

<u>OUTLINE</u>	<u>READER LEVEL</u>
I. <u>INTRODUCTION</u> Defines the scope of the report. Tells what areas are covered, what areas aren't.	general management security
II. <u>FUNCTIONS</u> Identifies the safeguards functions that the equipment, design feature, or procedure discussed is designed to provide. Establishes generic strengths and weaknesses to be expected.	general management security
III. <u>TECHNICAL DISCUSSIONS</u> Deals with installation, operation, and environmental specifics. Provides details on structural considerations, required maintenance of systems, correct match of safeguards components with site-specific situation. Identifies training requirements. Explains procedures in detail.	designer engineer installer security
IV. <u>BACK-UP TECHNICAL DATA</u> Provides tables, data, etc. on performance of individual components and sub-systems. Data such as material properties, component characteristics, etc. presented.	designer engineer installer
V. <u>GLOSSARY OF TERMS</u> Definitions of technical and uncommon terms used in report.	general technical security