

**ORDER FOR SUPPLIES OR SERVICES**

PAGE OF PAGES  
1 28

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

BPA NO.

1. DATE OF ORDER <b>JUN 27 2007</b>		2. CONTRACT NO. (if any) GS23F0076L		6. SHIP TO:	
3. ORDER NO. DR-03-07-029		4. REQUISITION/REFERENCE NO. NRR-07-029		a. NAME OF CONSIGNEE U.S. Nuclear Regulatory Commission	
5. ISSUING OFFICE (Address correspondence to) U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Jeffrey R. Mitchell, 301-415-6465 Mail Stop T-7-I-2 Washington, DC 20555				b. STREET ADDRESS Attn: Matthew Johnston Mail Stop: 11555 Rockville Pike	
7. TO:		c. CITY Rockville		d. STATE MD	e. ZIP CODE 20852
a. NAME OF CONTRACTOR SONALYSTS, INC <del>SONALYSTS FILMS &amp; TV</del>				f. SHIP VIA	
b. COMPANY NAME ATTN: OLIVE ALONGE				8. TYPE OF ORDER	
c. STREET ADDRESS 215 PKWY N				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
d. CITY WATERFORD		e. STATE CT	f. ZIP CODE 063851209		
9. ACCOUNTING AND APPROPRIATION DATA 720-15-122-108 J-3313 252A 31x0200.720 Obligate \$144,355.00 Contractors DUNS: 077317766				10. REQUISITIONING OFFICE NRR	
11. BUSINESS CLASSIFICATION (Check appropriate box(es))					12. F.O.B. POINT
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. EMERGING SMALLBUSINESS <input type="checkbox"/> g. SERVICE-DISABLED VETERAN-OWNED					N/A
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
a. INSPECTION		b. ACCEPTANCE		As Stated	
16. DISCOUNT TERMS Net 30					
17. SCHEDULE (See reverse for Rejections)					

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	The Contractor shall provide the U.S. Nuclear Regulatory Commission with "Technical Assistance to support NRC Generic Fundamental Examination (GFE) Administration" in accordance with the Statement of Work and additional Terms and Conditions attached to this Time & Material type Contract.  Period of Performance: July 1, 2007 - February 28, 2012  Attachment No. 1: SUMMARY OF COST Attachment No. 2: STATEMENT OF WORK Attachment No. 3: ADDITIONAL TERMS AND CONDITIONS  ORCA.GOV reps and certs incorporated by reference.  Please indicate your acceptance of this Contract:  Signature: <u><i>John W. Johnson</i></u> Title: <u>Controller</u> Date: <u>09/02/07</u>					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)  17(i). GRAND TOTAL
	21. MAIL INVOICE TO:						
	a. NAME U.S. Nuclear Regulatory Commission Payment Team, Mail Stop T-7-I-2						
	b. STREET ADDRESS (or P.O. Box) Attn: (DR-03-07-029) 11555 Rockville Pike						
c. CITY Rockville		d. STATE MD	e. ZIP CODE 20852		\$1,610,197		

22. UNITED STATES OF AMERICA  
BY (Signature)

*Donald A. King*

23. NAME (Typed)  
Donald A. King  
Contracting Officer  
TITLE: CONTRACTING/ORDERING OFFICER

ADMO01  
PREVIOUS EDITION NOT USABLE

**SUNSI REVIEW COMPLETE**

**JUL 12 2007**

OPTIONAL FORM NO. 346 (Rev. 10-06-95)  
PRESCRIBED BY GSA FPMR (41 CFR) 101-11.6

ADMO02



**TASK ORDER TERMS AND CONDITIONS**

NOT SPECIFIED IN THE CONTRACT

**A.1 NRC Acquisition Clauses - (NRCAR) 48 CFR Ch. 20**

**A.2 Other Applicable Clauses**

See Addendum for the following in full text (if checked)

52.216-18, Ordering

52.216-19, Order Limitations

52.216-22, Indefinite Quantity

52.217-6, Option for Increased Quantity

52.217-7, Option for Increased Quantity Separately Priced Line Item

52.217-8, Option to Extend Services

52.217-9, Option to Extend the Term of the Contract

**A.3 SEAT BELTS**

Contractors, subcontractors, and grantees, are encouraged to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented, or personally owned vehicles.



**Technical Assistance to Support NRC in the Administration of the  
Generic Fundamentals Examination  
of the Written Operator Licensing Examination**

**1. BACKGROUND**

The U.S. Nuclear Regulatory Commission (NRC) developed the Generic Fundamentals Examination (GFE) section of the written operator licensing examination to test candidates for NRC operator licenses on basic 'building block' knowledge applicable to all candidates across a particular reactor type, either Pressurized Water Reactor (PWR) or Boiling Water Reactor (BWR). Since 1988, the NRC has administered the GFE to candidates at 103 facility licensees. The GFE consists of 50 multiple choice test items based on knowledge classified in NUREG-1122, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators Pressurized Water Reactors," and NUREG-1123, "Knowledge and Abilities Catalog for Nuclear Power Plant Operator Boiling Water Reactors." The NRC administers the PWR and BWR GFE four times per year on the Wednesday following the first Sunday of March, June, September, and December.

**2. OBJECTIVES**

The objective of this contract is to obtain specialized technical assistance to support the administration of the GFE. NRC requires assistance in the maintenance of a computerized bank of validated BWR and PWR GFE items; preparation, distribution, grading, and evaluation (analysis) of the BWR and PWR GFE examination; updating the GFE test bank files; recommending improvements; and supporting the agency in addressing the industry's questions on the GFE process.

**3. TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED**

Technical personnel shall be subject matter experts in the fields of nuclear power plant (NPP) technology and testing and measurement (psychometrics) to develop and administer a national examination with emphasis in licensure, test item development/ review, item response theory, and item statistics.

In addition, the contractor shall have knowledge and experience in predicting item and exam difficulty levels and authoring items at varying cognitive levels and in statistical analysis to include, but not be limited to, content and predictive validity assessment, reliability assessment, item analysis and item discrimination ratios (IDR), difficulty indices, and descriptive statistics.

The contractor also shall have demonstrated past experience in the development and maintenance of examination item banks, as well as experience in the design, development, administration, and scoring of examinations and in the issuance of grade and statistical reports for national examination projects.

**4. WORK REQUIREMENTS AND SCHEDULE**

The contractor shall follow the guidance set forth in Section ES-205, "Procedure for

Administering the GFE," of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," when performing the following tasks:

#### Task 1 GFE Test Item Bank Maintenance

The contractor shall maintain the GFE test item bank that is currently in Corel Word Perfect. The GFE test item bank includes all validated BWR and PWR test items. Validated test items shall include individual item statistics such as dates administered, mean scores, and IDRs. The contractor shall provide the NRC with updated copies of the GFE test item bank in electronic format—and paper copy, if requested—60 calendar days after the administration of each GFE.

**Standard:** The deliverable shall be submitted by close of business, 5:00 p.m. Eastern Standard Time (EST), on the due date specified above.

#### Task 2 Examination Development

The contractor shall develop 36 examinations consisting of 18 GFEs for BWR operators and 18 GFEs for PWR operators. Each BWR and PWR examination shall consist of 50 multiple choice test items. The contractor shall draw 40 test items from the GFE test item bank. The contractor shall modify 5 test items from the GFE test item bank and develop the 5 new test items. These 5 new test items shall neither be seen before nor be contained within the GFE test item bank. The 5 new test items shall be written at the comprehension and analysis cognitive levels and drawn directly from higher cognitive level knowledge and ability statements from the respective PWR and BWR knowledge and ability catalogs for NPP operators (i.e., NUREG-1122 and NUREG-1123). Thus, the distribution of items on any BWR or PWR GFE shall be 40 bank-validated, 5 modified, and 5 new items (i.e., 40/5/5). Among the three areas of examination coverage, the sample distribution shall be 44 percent for components, 28 percent for reactor theory, and 28 percent for thermodynamics. Thus, each 50-item GFE shall consist of 22 component items, 14 reactor theory items, and 14 thermodynamic items with the 5 new items to include 3 component items, 1 reactor theory item, and 1 thermodynamics item.

The contractor shall test the draft PWR and BWR GFEs on a representative sample of contractor subject matter experts. The contractor shall grade the pilot test answer sheets and perform a final overall psychometric and technical review of the examinations.

The contractor shall provide a draft GFE to the NRC 45 calendar days prior to each examination administration date. The NRC will review the examination and provide comments to the contractor within 1 week.

The contractor shall provide a final GFE, incorporating NRC comments, to the NRC for approval 20 calendar days prior to each examination administration date. The NRC will review the examination, resolve necessary changes with the contractor, and approve the final examination at least 15 calendar days prior to the examination administration date. Following the NRC's approval, the contractor shall develop two forms containing the approved items in different order (i.e., forms A and B of each PWR or BWR examination).

**Standard:** The deliverables (draft and final) shall be submitted by close of business, 5:00 p.m. EST, on the due date specified above.

### Task 3 Examination Distribution

The contractor shall assemble and ship the examination packet as described in Section ES-205 of NUREG-1021, via a courier with trace capability, 6 working days prior to the GFE administration date. NRC will supply the contractor with an initial stock of blank answer sheets along with the address for obtaining more when necessary. Thirty calendar days prior to the GFE administration date, the NRC will provide the contractor with the names (points of contact) and addresses of participating utilities and the names of the applicants intending to take the examination.

**Standard:** The deliverable shall be shipped by close of business, 5:00 p.m. EST, on the due date specified above.

### Task 4 Examination Grading

The contractor shall grade the multiple choice examinations. If the contractor does not own an optical mark reader (OMR) or PARSCORE software, the NRC will supply these items as Government Furnished Equipment. The NRC will not reimburse the contractor for the purchase of the OMR or PARSCORE software. As a part of the grading process, the contractor shall review and respond to the NRC regarding proposed resolutions to any post examination facility comments. Post-examination facility comments are due to the NRC no later than 5 calendar days after the GFE administration date. Recommendations for grading changes, along with justification, shall be presented to the NRC for approval. Final grade reports—to include individual scores; corrected answer keys; original answer sheets; original, signed examination cover sheets; and signed security agreements—shall be forwarded to the NRC within 18 calendar days after the receipt of answer sheets from all facility participants. In case of scanner failure, the contractor shall grade the examinations by hand and provide the final grade reports to the NRC within 30 calendar days after the receipt of answer sheets from all facility participants. The contractor shall provide to the region the applicable facility and regional final grade reports—to include individual scores and copies of individual answer sheets, and corrected answer keys—within 7 calendar days after receipt of NRC approval of the final grade reports.

**Standard:** The deliverables shall be submitted by close of business, 5:00 p.m. EST, on the due date specified above.

### Task 5 Item Statistics/Examination Evaluation

The contractor shall prepare a comprehensive evaluation report after the administration of each GFE detailing the reliability and the validity of the examination and discussing the technically oriented statistics (e.g., examwide item statistics, analysis of specific items deleted, or answers changed to a GFE test item, by the NRC, as a result of post-examination review). The contractor shall provide the evaluation report within 48 calendar days after receipt of all final answer sheets.

**Standard:** The deliverable shall be submitted by close of business, 5:00 p.m. EST, on the due date specified above.

## Task 6 GFE Process Improvements

The contractor shall recommend improvements to the GFE process as needed. Also, the contractor shall support the NRC, as directed by the NRC Technical Monitor (TM), in addressing the industry's questions on the GFE process. Recommendations and questions may include any area affecting the examination such as development, administration, grading, evaluation, and test banks. The contractor shall provide its recommendations and responses to the industry's questions within 30 calendar days after the NRC's approval of the final grade reports or as otherwise directed by the NRC TM.

**Standard:** The deliverable shall be submitted by close of business, 5:00 p.m. EST, on the due date specified above.

## Task 7 Test Item Bank Files for NRC Posting on the NRC Web Site

The contractor shall update and maintain the GFE test item bank files for the NRC to post on the agency's public Web site. This includes updating new and validated test items from the two most recent examinations 60 calendar days after the second and fourth annual GFE administration examination dates. The contractor shall submit updated files to the TM and to the Office of Nuclear Reactor Regulation (NRR) WebServices. NRR WebServices will post these files to the NRC GFE Web site. The contractor shall not upload files to NRC's public Web site. The NRC GFE Web site consists of two separate BWR and PWR banks and includes validated test items only. The BWR and PWR test banks shall be separately maintained and organized by item category: components, reactor theory, and thermodynamics. Each validated test item shall contain, at the minimum, the item knowledge and abilities (K/A) reference number and its numerical importance value in accordance with its respective knowledge and abilities catalog for NPP operators: NUREG-1122 for PWR operators (PWR K/A catalog) and NUREG-1123 for BWR operators (BWR K/A catalog). The contractor shall format its updates for the NRC Web site so that users will have the capability to view/copy the bank and to hyperlink to other NRC Web sites. The contractor shall develop internal security precautions for the GFE test item bank files to prevent the influence of any unauthorized persons or entity from tampering or altering test bank items. The contractor shall adhere to Federal as well as the NRC's Office of Information Services' Information Technology Security Policies, Procedures, Standards, and Guidelines when developing internal security precautions.

**Standard:** The deliverable shall be submitted by close of business, 5:00 p.m. EST, on the due date specified above.

## 5. MEETING AND TRAVEL

NRC anticipates the following travel in support of this contract:

- 3 trips total during the life of the contract (one trip every other year for 1 person and for ½ day), to NRC Headquarters in Rockville, MD, for contract status briefing.

Note the ½ day refers to proposed length of meeting.



## 6. PERIOD OF PERFORMANCE

The period of performance is from July 1, 2007 through February 28, 2012.

## 7. DELIVERABLES

The contractor shall provide the below deliverables in electronic format. The provided electronic format must be prepared using the NRC-approved version of Microsoft Word or other word processing software for source text files and/or Adobe Acrobat for portable document format (PDF) files.

All deliverables shall be provided to the NRC TM unless stated otherwise.

### Task 1 GFE Test Item Bank Maintenance

**Deliverable:** Updated BWR and PWR GFE test item bank (electronic PDF files and when requested in paper copy)

**Due:** 60 Calender Days after administration of each GFE

### Task 2 Examination Development

The NRC administers the PWR and BWR GFE four times per year on the Wednesday following the first Sunday of March, June, September, and December.

Task 2 Examination Development			
Year	Exam Schedule	Deliverable	Due Date (Calender Days) Prior to Exam Date
2008, 2009, 2010, 2011	March	Draft PWR GFE	45
2008, 2009, 2010, 2011	March	Draft BWR GFE	45
2008, 2009, 2010, 2011	March	Final PWR GFE	20
2008, 2009, 2010, 2011	March	Final BWR GFE	20
2008, 2009, 2010, 2011	June	Draft PWR GFE	45
2008, 2009, 2010, 2011	June	Draft BWR GFE	45
2008, 2009, 2010, 2011	June	Final PWR GFE	20
2008, 2009, 2010, 2011	June	Final BWR GFE	20
2007, 2008, 2009, 2010, 2011	September	Draft PWR GFE	45

Task 2 Examination Development			
Year	Exam Schedule	Deliverable	Due Date (Calendar Days) Prior to Exam Date
2007, 2008, 2009, 2010, 2011	September	Draft BWR GFE	45
2007, 2008, 2009, 2010, 2011	September	Final PWR GFE	20
2007, 2008, 2009, 2010, 2011	September	Final BWR GFE	20
2007, 2008, 2009, 2010, 2011	December	Draft PWR GFE	45
2007, 2008, 2009, 2010, 2011	December	Draft BWR GFE	45
2007, 2008, 2009, 2010, 2011	December	Final PWR GFE	20
2007, 2008, 2009, 2010, 2011	December	Final BWR GFE	20

Task 3 Examination Development

**Deliverable:** Examination Packet

**Due:** Ship via a courier with trace capability, 6 working days prior to the GFE administration date to participating utilities

Task 4 Examination Grading

**Deliverable:** Final Grade Reports

**Due:** NRC: 18 calendar days after receipt of answer sheets from facility participants  
Regional Offices: 7 calendar days after receipt of NRC approval of Final Grade Reports

Task 5 Item Statistics/Examination Evaluation

**Deliverable:** Comprehensive Item Statistics/Examination Evaluation Report

**Due:** 48 calendar days after receipt of answer sheets from all facility participants

Task 6 GFE Process Improvements

**Deliverable:** Process Improvement Recommendations and Responses to the Industry's Questions

**Due:** 30 calendar days after receipt of NRC approval of Final Examination Grade Report, or as otherwise directed by the NRC TM

Task 7 Test Item Bank Files for NRC Posting on the NRC Web Site

**Deliverable:** Updated GFE test item bank files to include new validated test items

**Due:** 60 calendar days after the second and fourth annual GFE administration examination dates

**8. OVERALL PERFORMANCE STANDARDS AND DEDUCTION SCHEDULE**

The following processes will be used by NRC to motivate successful performance of the SOW requirements stated herein:

Failure by the Contractor to comply with any of the procedures and/or SOW requirements stated herein shall constitute a "valid-deficiency" under this contract, unless the failure can be shown to be caused by circumstances beyond the Contractor's control.

No more than one (1) SOW-deficiency shall be allowed by NRC per calendar-month period, in which the NRC Project Officer (PO) determines the discrepancy is a "valid-deficiency" for non-compliance with any SOW Requirements.

The Contractor shall invoice monthly with a single invoice that includes a breakdown of the cost of all support provided during the previous calendar-month's period. For any month in which the Contractor fails to comply with the SOW requirements stated herein, NRC reserves the right to deduct the following amounts from that month's total monthly invoice payment:

Number of Deficiencies	Deduction Schedule Per Monthly Invoice
0 to 1	0%
2-3	5%
3-4	6%
5-6	8%
7 or more	10%

NOTE: Under the performance Incentives listed above, NRC will not deduct more than a total of 10% from the monthly invoice.

The deductions listed above do not prevent NRC from taking other appropriate actions to correct performance problems under this contract.

**9. REPORTING REQUIREMENTS**

The contractor shall provide a Monthly Status Report to the NRC PO, TM, Contracting Officer (CO), NRR Certifying Funds Official, Director of the Division of Inspection and Regional Support, and Branch Chief, Operator Licensing and Human Performance by the 15th of each month. The

report must identify the title of the project, contract number, Job Control Number (JCN), PM and/or principal investigator, the contract period of performance, and the period covered by the report. The report shall be transmitted electronically to program personnel and the CO. The report shall provide the technical and financial status of the effort as shown in Attachment 1 and described below.

The technical status section of the report shall contain the contract objectives, a summary of the work performed under each task during the reporting period and any milestones reached; an explanation why any milestone was missed, a description of any problems or delays encountered or anticipated with recommendations for resolution, and plans for the next reporting period. The status shall contain information on travel during the period including the purpose of travel, trip start and end dates, destination, and travelers for each trip.

The financial status section of the report shall include the total contract award amount and funds obligated to date; total costs incurred in the reporting period, broken down by direct and indirect costs; total cumulative costs incurred to date; total staff hours incurred to date and in the reporting period; labor hour distribution (e.g., management, technical and clerical) incurred to date and in the reporting period. The report shall also contain the balance of obligations remaining at the end of the period and balance of funds required to complete the contract/task order. Additionally, the report shall address the status of the Contractor Spending Plan, showing the percentage of project completion and any significant changes in either projected expenditures or percentage of completion. The report also shall identify the acquisition cost, a description (model number, manufacturer), and the acquisition date of any property/equipment acquired for the project during the month with an acquisition cost more than \$500.

If the data in this report indicates a need for additional funding beyond that already obligated, this information may only be used as support to the official request for funding required in accordance with the Limitation of Cost Clause (FAR 52.232-20) or the Limitation of Funds Clause FAR 52.232-22.

#### **10. EXPECTED CLASSIFICATION OR SENSITIVITY**

The contractor shall consider all written reports to be informal draft reports and to contain sensitive unclassified information. Unless otherwise directed, the contractor shall handle these reports as "Official Use Only" documents. If the contractor obtains proprietary or company confidential data for this contract, the contractor shall agree not to release such information in accordance with 10 CFR 2.390 and not to release such information to any person not directly involved in performing work under this contract unless such release is authorized in writing by the NRC CO. On completion or termination of this contract, the contractor shall return to the NRC all copies of any proprietary confidential data.

#### **11. NRC-FURNISHED MATERIALS**

NRC shall provide the current GFE test item bank (PWR and BWR), an initial supply of blank GFE examination answer sheets, and, as necessary, an OMR scanner and PARSCORE software.

The following NUREG Reports are publicly available at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/>

- NUREG-1021, "Operator Licensing Examination Standards for Power Reactors"
- NUREG-1122, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Pressurized Water Reactors"
- NUREG-1123, "Knowledge and Abilities catalog for Nuclear Power Plant Operators: Boiling Water Reactors"

## 12. OTHER APPLICABLE INFORMATION

### License Fee Recovery

The work under this contract is not license fee recoverable.

ATTACHMENT 1 UNDER THE SOW

MLSR FINANCIAL STATUS REPORT FORMAT  
MONTH, YEAR

Contract No.:

Job Code Number: J-TBD (Specialized internal account number)

TITLE:

Project Period of Performance: From MM/DD/YYYY to MM/DD/YYYYY

1.	Contract Ceiling:	\$xxx,xxx.xx
2.	Total Funds Obligated to Date:	\$xxx,xxx.xx
3.	Total Cost Incurred this Reporting Period:	\$xxx,xxx.xx
4.	Total Cost incurred to Date:	\$xxx,xxx.xx
5.	Total Staff Hours Worked this Reporting Period:	\$xxx,xxx.xx

	<u>Current Month</u>	<u>Fiscal Year to Date</u>	<u>Cumulative Project to Date</u>
Management Hours Worked	xxx.xx	xxx.xx	xxx.xx
Technical Hours Worked	xxx.xx	xxx.xx	xxx.xx
Clerical Hours Worked	xxx.xx	xxx.xx	xxx.xx
6. Total Staff Hours Worked to Date:			xxx.xx
7. Balance of Obligations Remaining (Line 2 minus Line 4 above)			\$xxx,xxx.xx
8. Remaining Funds to be Obligated (Line 1 minus Line 2 above)			\$xxx,xxx.xx
9. Cumulative Project Completion Percentage (Line 4 divided by Line 1)			xx.xx%
10. Significant Changes to Contractor Spending Plan: (Note any)			
11. Direct and Indirect Cost Incurred this Reporting Period:			

	<u>Current Month</u>	<u>Fiscal Year to Date</u>	<u>Cumulative Project to Date</u>
Direct Labor	\$xxx.xx	\$xxx.xx	\$xxx.xx
Travel Expenses	\$xxx.xx	\$xxx.xx	\$xxx.xx
Subcontracts/Consultants	\$xxx.xx	\$xxx.xx	\$xxx.xx
Other Direct Cost	\$xxx.xx	\$xxx.xx	\$xxx.xx
G&A	\$xxx.xx	\$xxx.xx	\$xxx.xx
Fee	\$xxx.xx	\$xxx.xx	\$xxx.xx
Total	\$xxx.xx	\$xxx.xx	\$xxx.xx