SOLICITA	TION/CON	TRACT/ORDER FOR	COMMERCIA	AL ITEMS	1. REQUISI	TION NUM	BER	PAGE 1 OF	Da		
CONTRACT NO. NRC-26-98-263		3 AWARD/EFFECTIVE DATE	4 ORDER NUMB	BER	5. SOLICIT	ATION NU ED-98-2			6. SOLICITATION ISSUE DATE 2/27/98		
FOR SOLICITATION	lb-	a NAME Paulette Smith			b. TELEPHONE NUMBER (No Collect Calls) (301) 415-6594			TIME 3/	8. OFFER DUE DAYE/LOCAL TIME 3/30/98 3:30, p. m.		
U.S. Nuclear Division of C	Regulatory C Contracts and 2 agement Brand	Property Mgt.	Ē	SMALL BUSINESS  SMALL DISADV. BUS:NESS  13b. RATING N/A  14. METHOD OF SOLICE			N/A  N/A  N/A  NACY IS A RATED ORDER UNDER FR 700)				
				and the second second second second second	ARD: \$5.0 Mi	llion	RFQ	IFB X	REP		
5746 Marlin	Regulatory C ller l Training Ce Road, Suite 2 TN 37411-5677	enter 200		16. ADMINIS	THEREO OF						
Conger & Els ATTN: Dorian 9870 Highway Suite 300	ea, Inc.	FACILITY CO	ioe	U.S Off Attr	ice of the C	gulator hief Fi	ry Commission nancial Office	CODE			
Woodstock GA											
	TANCE IS DIFFEREN	T AND PUT SUCH ADDRESS IN OFF	ren	18b. SUBMIT	INVOICES TO AD		CWN IN BLOCK 18a UN E ADDENDUM	NLESS BLOCK BELOW	IS CHECKED		
19. ITEM NO		20 SCHEDULE OF SUPPLIES/SERVIO	CES		21. QUANTITY	22. UNIT	23. UNIT PRIC	E	24. AMOUNT		
SUPF Proj Team Type Inde	PLIES/SERVICE ject Title: " m Training" e of Contract efinite Deliv	OR SCHEDULE OF S) Incident Investigation : Fixed Price ery (Requirements) mance: Five (5) years			*						
PROVIDED SUE	BLIGATION AT BJECT TO AVAI INCORPORATES BY	LABILITY OF FISCAL YEAR REFERENCE FAR 52.212-1. 52.212	4. FAR 52.212-3 AN	ID 52.212-5 AR	E ATTACHED. AD	DENDA	\$757.4	T ATTACHED.	. Use Only)		
8 CONTRACTOR IS REQ	CONTRACTOR AG	ORPORATES BY REFERENCE FAR 5: S DOCUMENT AND RETURN REES TO FURNISH AND DELIVER AL VE AND ON ANY ADDITIONAL SHE D HEREIN.	COPIES LL ITEMS SET		DATED X 5), INCLUDING HERSIN IS ACC	ANY ADD	REFERENCE YOU HTIONS OR CHANGES TO ITEMS:	UR OFFER ON SOLICIT WHICH ARE SET FOR			
304 SHATURE OF OFFE ALCOHOLOGY 305 NAME AND TITLE OF DOTION S:	1. (9-	11-	DAJE SIGNED	200	OF CONTRACTIN TY Mace, COT	G OFFICEP	NATURE OF CONTRACT TYPE OR PRINT) OR OFFICER VOUCHER N. MBER	31s	DATTE SIGNED S		
32a. QUANTITY IN COLU	MN 21 HAS BEEN	ACCEPTED AND CONFEC CONTRACT, EXCEPT A	DRMS TO THE S NOTED	PARTI 36. PAYM	AL FINAL				ECT FOR		
32b. SIGNATURE OF AUT	THORIZED GOVT. RE		DATE		CCOUNT NUMBER	PARTIAL 39	S/R VOUCHER NUMBE	R 40. PAID	вч		
			NT	42a NECIE	VED BY ITTIMO			10	TOD		
416. SIGNATURE AND T	Andrea Antonio and an income and income and	, Orridan	DATE		E REC'D (YY/MM/		d TOTAL CONTAINER	RS			
NRC-	26-98-2	63 PDR	******				STANDARI	D FORM 1449	10-951		

proj.	ж.	mg.	9573
W.	$\alpha$	G	94
E 1	L.Y.	w.	A int

# TABLE OF CONTENTS

ART I - THE SCHEDULE	1
COLECTED TO COLECTED A CITY FORM	1
ECTION A - SOLICITATION/CONTRACT FORM	7
SF 1449 SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS	T
SECTION B - CONTINUATION BLOCK	4
B.1 PROJECT TITLE	4
B.2 BRIEF DESCRIPTION OF WORK (MAR 1987)	4
	4
B.3 STATEMENT OF WORK	4
B.3.1 BACKGROUND	5
B.3.2 CONTRACT OBJECTIVE	5
B.3.3 SCOPE OF WORK	
B.3.4 Presentation of the Incident Investigation Team Training	5
R 3 5 Presentation of the Incident Investigation Team Refresher .	7
B.3.6 Presentation of the Root Cause/Incident Investigation	7
	8
B.3.7 Presentation of the Human Performance Investigation Process	8
B.3.8 Future Minor Course Revisions/Major Course Revisions	9
B.3.9 Additional training courses (option)	9
B.3.10 Course scheduling and location	100
B.3.11 Instructor Qualification Requirements	10
B.3.12 General Information	10
B.3.13 Contract Monitoring	11
	12
	12
B.3.15 Subcontracts	12
B.4 Course Outline 1	17
B.5 Course Outline 2	-
B.6 Course Outline 3	21
B.7 Course Outline 4	23
B.8 SUPPLIES OF SERVICES AND PRICES/COSTS	25
	28
	28
	28
B.11 FINAL REPORT	29
B.12 GOVERNMENT FURNISHED EQUIPMENT/PROPERTY (JUNE 1988)	
B.13 2C32.215-70 KEY PERSONNEL	29
B.14 2052.215-71 PROJECT OFFICER AUTHORITY	30
B.15 INCORPORATION OF TECHNICAL AND COST PROPOSALS	32
B.16 RIGHTS IN DATA - SPECIAL WORKS (FAR 52.227-17)	32
(JUN 1987)	34
B.17 52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL	24
YEAR (APR 1984)	24
B.18 2052.215-82 TRAVEL REIMBURSEMENT-ALTERNATE 1	34
B.19 2052.215-83 TRAVEL APPROVALS	35
B.20 ORDERING PROCEDURES (MAY 1991)	35
B.21 ELECTRONIC PAYMENT	35
	36
	36
B.23 REPORTING REQUIREMENTS AND DELIVERABLES	36
B.24 Milestones	
B.25 Course Presentation Reports	37
SECTION C - CONTRACT CLAUSES	38
SECTION C - CONTRACT CLAUSES	38
C.2 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO	38
TALLER TO THE TENTED WITH CONDITIONS REPORTED TO 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

	TABLE OF CONTENTS	PAG	ΞE
C 3	IMPLEMENT STATUTES OR EXECUTIVE ORDERSCOMMERCIAL ITEMS (APR 1998) 52.216-18 ORDERING (OCT 1995)		41
C.3 C.4	52 216-19 ORDER LIMITATIONS (OCT 1995)		41
C.5	52.216-21 REQUIREMENTS (OCT 1995)		42
ECTION	D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS		44

#### SECTION B - CONTINUATION BLOCK

#### B.1 PROJECT TITLE

The title of this project is as follows:

"INCIDENT INVESTIGATION TEAM TRAINING"

## B.2 BRIEF DESCRIPTION OF WORK (MAR 1987)

(a) Brief description of work:

The Contractor shall furnish qualified personnel, materials, and services to present (1) an Incident Investigation Team Training course, (2) an Incident Team Training Refresher course, (3) a Root Cause/Incident Investigation Workshop, and (4) a Human Performance Investigation Process training course.

(b) Orders will be issued for work required by the NRC in accordance with 52.216-18 - Ordering. Only Contracting Officers of the NRC or other individuals specifically authorized under this contract may authorize the initiation of work under this contract. The provisions of this contract shall govern all orders issued hereunder.

#### B.3 STATEMENT OF WORK

#### B.3.1 BACKGROUND

The Nuclear Regulatory Commission (MRC) licenses and inspects reactor and non-reactor facilities to ensure compliance with applicable codes and standards during all phases of construction testing and operation in order to identify conditions which may adversely affect the health and safety of the public.

The Incident Investigation Program (IIP) is intended to upgrade the NRC investigation of significant events and to assure that the investigation is timely, thorough, coordinated and formally administered. The primary objective of the IIP is to ensure that operational events are investigated in a systematic and technically sound manner to gather information pertaining to the root causes of the events, including any NRC contributions or lapses, and to provide appropriate feedback regarding the lessons of the experience to the NRC, industry, and to the public.

In order to ensure that the investigation of events is carried out in a structured, coordinated and integrated manner, the NRC's Office for Analysis and Evaluation of Operational Data (AEOD) provides formal training in incident investigation to

each candidate selected for participation in Incident Investigation Teams (IITs). In 1986, a training program was organized and developed by the Incident Investigation Staff (IIS). This intensive two-week training course, Incident Investigation Team Training Course, has been held with participation by both reactor and non-reactor personnel.

The Incident Investigation Team Refresher Training Course provides the necessary periodic retraining of individuals who have completed the initial Incident Investigation Team Training Course. The refresher training ensures that an individual's proficiency in the IIT program is maintained at a high level.

The response to the Incident Investigation Team Training courses resulted in the development of the Root Cause/Incident Investigation Workshops which are presented in the Regional Offices and in Headquarters. The primary objective of the Root Cause/Incident Investigation Workshops is to provide NRC personnel the training necessary to ensure that operational events are investigated in a systematic and technically sound manner to gather information pertaining to the root causes of the events, including any NRC contributions or lapses, and to provide appropriate feedback regarding the lessons of the experience to the NRC, industry, and to the public.

The Human Performance Investigation Process Training provides NRC personnel a detailed standard investigation process for use when investigating human performance related events at nuclear power plants. The process was developed to meet the special needs of NRC personnel, especially NRC resident and regional inspectors.

#### B.3.2 CONTRACT OBJECTIVE

The objective of this contract is to continue presentation of (1) The Incident Investigation Team Training Course, (2) the Incident Investigation Team Training Refresher Course, (3) the Root Cause/Incident Investigation Workshop, and (4) the Human Performance Investigation Process Training Course. The courses will provide NRC staff members with state-of-the-art training in accident investigation, and will ensure that the NRC's investigation of significant events is carried out in a timely, thorough and coordinated manner according to the program plan established by AEOD on December 31, 1985.

#### B.3.3 SCOPE OF WORK

The Contractor shall furnish qualified personnel, materials and services to present and maintain each of the identified training courses.

# B.3.4 Presentation of the Incident Investigation Team Training Course

a. The outline for the existing Incident Investigation Team Training Course is shown in Course Outline 1 in Section B.4 of

this contract. The 10 day course is presented in a combination of lectures and workshops. After the introduction of the case studies on Day 3, the students start working in teams to investigate the incidents; applying the methods and techniques discussed in the concurrent lectures. The course concludes with formal presentations of their findings by each student team on Day 10.

- b. Because many of the existing course materials are proprietary and the existing case studies have been in use for some time, the Contractor will have to develop materials to support their portion of the course (identified in Course Outline 1). The Contractor may develop course material to support their portion of the courses at no expense to the NRC and these materials shall be considered proprietary. Any course materials developed at NRC expense shall be provided by the Contractor to the NRC with unlimited rights. Course materials will include:
- (1) Student materials inserted in a binder along with NRC supplied materials. The student materials will include learning objectives, textual materials and copies of visual aids used during the course presentation. Background materials for the case studies may be supplied separately if the Contractor provides proprietary materials.
- (2) Instructor's guide including as a minimum detailed lesson plans for presenting the course.
- (3) One reactor incident based case study and one nuclear materials based case study. As a minimum, each case study will consist of an accident summary, detailed background and narrative, events before the incident, events during and after the incident, facility organization charts, plant and equipment diagrams, and role-playing scripts for instructors to facilitate the Incident Investigation Workshop.
- c. Course Outline 1 in Section B.4 identifies the responsibility (NRC or Contractor) for each course topic and the training activities involved.

The NRC will provide instructors for course days 1, 2, and portions of additional days as noted in Section B.4 Course Outline and the Contractor shall provide instructors for the remaining days.

A course has typically required participation by three contractor personnel during course days 4 through 10.

Because the contractor instructors must act the part of various licensee personnel during the case studies, each instructor will be required to spend 3 to 4 hours per day outside of the normal class hours involved with the investigation process.

# B.3.5 Presentation of the Incident Investigation Team Refresher Training Course

- a. The outline for the Incident Investigation Team Refresher Training Course is shown in Course Outline 2 in Section B.5. The 3 day course is presented in a combination of lectures and workshops similar to the IIT Course described above. Short examples are used to review analytical techniques along with brief accident case studies to summarize the analytical techniques.
- b. Because many of the existing course materials are proprietary and the existing case studies have been in use for some time, the Contractor will have to develop materials to support their portion of the course (identified in Course Outline 2). The Contractor may develop course material to support their portion of the courses at no expense to the NRC. Materials developed by the contractor at no expense to the NRC can be considered proprietary. This will include:
- (1) Student materials (to be inserted in a binder along with NRC supplied materials). The student materials will include learning objectives, textual materials, background materials for the accident scenarios and copies of visual aids used during the course presentation.
- (2) Instructor's guide including as a minimum detailed lesson plans for presenting the course.
- (3) One short reactor incident based case study and one short nuclear materials based case study. As a minimum, each case study will consist of an accident summary, detailed background and narrative, events before the incident, events during and after the incident, facility organization charts, plant and equipment diagrams, and role-playing scripts for instructors to facilitate the workshop.
- c. Course Outline 2 identifies the responsibility (NRC or Contractor) for each course topic and the training activities involved.

A course has typically required participation by two contractor personnel.

The NRC will provide instructors for course days 1 and 3 as noted in Section B.5 Course Outline. It will be necessary for the instructors to act the part of various licensee personnel during the case studies.

# B.3.6 Presentation of the Root Cause/Incident Investigation Workshop

a. The outline for the existing Root Cause/Incident Investigation Workshop is shown in Section B.6 Course Outline 3. The 5 day course is presented in a combination of lectures and workshops similar to the IIT Course. After the

Section B

introduction of the case studies on Day 1, the students start working in teams to investigate the incidents; applying the "thods and techniques discussed in the concurrent lectures. The course concludes with formal presentations of their findings by each student team on Day 5.

- b. Because many of the existing course materials are proprietary the Contractor will have to develop materials to support their portion of the course. The Contractor may develop course material to support their portion of the courses at no expense to the NRC. Materials developed by the contractor at no expense to the NRC can be considered proprietary. The Contractor will have to develop materials to support presentation of the course. This would include:
- (1) A student manual. The student manual would include learning objectives, textual materials, background materials for the accident scenarios and copies of visual aids used during the course presentation.
- (2) Instructor's guide including as a minimum detailed lesson plans for presenting the course.
- (3) One reactor incident based case study and one nuclear materials based case study. As a minimum, each case study will consist of an accident summary, detailed background and narrative, events before the incident, events during and after the incident, facility organization charts, plant and equipment diagrams, and role-playing scripts for instructors to facilitate the workshop.
- c. A course has typically required participation by two contractor personnel.

# B.3.7 Presentation of the Human Performance Investigation Process Training Course

- a. The Contractor shall present the existing Human Performance Investigation Process Course in its current 1 day (8 hour) format; the course format is shown in Section B.7 Course Outline 4.
- b. The NRC will furnish the Contractor with copies of the current course materials (Instructor's Manual, Student Manual, and graphics) necessary to support presentation of the course.
- c. General course information and procedures are addressed in Section B.3.12 below.

# B.3.8 Future Minor Course Revisions/Major Course Revisions

(a) Minor Course Revisions

Throughout the period of performance of this contract, the NRC Project Officer may require the Contractor to incorporate minor changes into the course materials. Examples of minor

changes are changed and/or updated materials as a result of regulation changes, agency policy changes, minor additions or deletions to reflect course evaluation feedback, etc. A draft copy of the revised course materials shall be furnished to the NRC Project Officer for written comments and/or approval prior to submittal of a final revision.

# (b) Major Course Revisions

- (1) If the proposed course revision were to involve major course revisions (i.e., more than 25% of the course materials), a specific contract modification establishing the scope of work, milestones and costs would be negotiated. Typical milestones would include:
- (a) Within 15 working days of the contract modification, a meeting to discuss the scope of work.
- (b) Within 45 working days of the contract modification, Contractor submit draft copies of the revised course materials to the NRC Project Officer.
- (c) Within 15 working days after receipt of the draft course materials, the NRC Project Officer provides written comments and/or approval to the Contractor.
- (d) Within 15 days after receipt of the NRC Project Officer's approval of the draft course materials, the Contractor shall amend the draft course materials, as necessary, and deliver a final copy of the materials ready for reproduction to the NRC Project Officer. The Contractor shall also provide a copy of all written course materials on DOS-formatted diskettes in a WordPerfect 6.1 format and a copy of the graphics software files used to produce visual aids in a format mutually agreed on by the Contractor and NRC Project Officer.

# B.3.9 Additional training courses (option)

The NRC may request the Contractor to develop and present specialized versions of any of above courses or additional courses which deal specifically with topics covered in above courses. An example might be a shortened version of the Root Cause/Incident Investigation Course for managers, Root Cause/Incident Investigation Refresher, Safety Analysis Software, MERIT, or a course dealing with a specific topic such as root cause analysis. A specific contract modification establishing the scope of work, costs, number of presentations, milestones and costs would be issued. Milestones similar to those described in Section B.3.5, above, would be established.

# B.3.10 Course scheduling and location

a. The NRC anticipates 1 presentation of the Incident Investigation Training Course or 1 presentation of the Incident Investigation Refresher Training Course every other year.

Approximately 4 presentations of the Root Cause/Incident Investigation Workshop and 2 Human Performance Investigation Process Courses would be anticipated each year.

- b. Exact course dates will be arranged with the contractor at least sixty (60) days before each course. Course dates will be determined by the NRC Project Officer and confirmed by written delivery order to the Contractor on Optional Form 347/348 (see Attachment 3).
- c. Should the NRC determine no later than 30 days prior to the time a course session is to begin that the need is insufficient to conduct the training, the NRC may reschedule the session without obligation to the government.

# B.3.11 Instructor Qualification Requirements

The proposed course instructor(s) must have experience in the development and presentation of training materials in the nuclear industry; including specific experience as a classroom instructor for the accident/incident investigation techniques addressed in the courses sited above. Instructors should be familiar with use of the Management Oversight and Risk Tree (MORT) process and the NRC's Human Performance Investigation Process (NUREG/CR 5455 Volume 1 and 2). The proposed course instructors must have experience necessary for the instructors to act the part of various licensee personnel during the case studies.

#### B.3.12 General Information

- a. Class size will be approximately 25 persons for the Incident Investigation Team Training Course and the Incident Investigation Team Refresher Training Course.
- (1) The class will be split into groups of approximately five students each for work on the case studies.
- (2) Students will typically spend several hours each evening of the Incident Investigation Team Training Course working on the case studies.
- (3) The courses will typically be held at NRC headquarters or at an NRC selected site within 2 hours drive of Rockville, MD.
- b. Class size will be a minimum of 10 people and a maximum of 25 people for the Root Cause/Incident Investigation Workshop and Human Performance Investigation Process Training Course. Classes will be split into groups of approximately five students each for work on the case studies/examples. Nominal class size will be 15 people.
- (1) Courses will typically be conducted at the NRC Headquarters, Rockville, MD or at/near one of the NRC regional offices in King of Prussia, Pennsylvania (Region I); Atlanta,

Georgia (Region II); Lisle, Illinois (Region III); Arlington, Texas (Region IV).

- c. Additional course information
- (1) Classes shall typically start at 8:00 AM and end about 4:00 PM, allowing 10 minute breaks about every hour and one hour for lunch.
- (2) The NRC will provide facilities for conducting the course and provide necessary audio-visual equipment.
- (3) The NRC will furnish for the Incident Investigation Team training, the Incident Investigation Team Refresher training, and the Human Performance Investigation Process training, at the time of each course presentation, a course manual for each student, student registration forms and a course evaluation sheet to be filled out by each student.
- (4) The contractor is responsible for furnishing the Roct Cause/Incident Investigation course manual for each student, at the time of each course presentation. The NRC will furnish Root Cause/Incident Investigation course the necessary student registration forms and a course evaluation sheet to be filled out by each student.
- (5) The NRC shall be responsible for preparing course announcements, student registration and preparing course completion certificates.
- (6) The Contractor shall arrive in sufficient time prior to the start of each class to check/setup the training room, layout course materials, prepare equipment, etc. as necessary.
- (7) On the first day of each class, the contractor shall ensure required student registration forms and other administrative actions are completed.
- (8) At the conclusion of each course, the Contractor shall collect the student evaluations and work with the NRC course coordinator to cleanup the classroom, box course materials, etc.
- (9) The NRC reserves the right to supplement course presentations with NRC experts if available. These experts would be used to further amplify certain topics, and/or answer questions that may arise regarding NRC policy or procedures. Specific times will be coordinated with the contractor.

# B.3.13 Contract Monitoring

The Contractor shall refer to Section B.14 of this contract for Project Officer Authority. During the life of this contract, the NRC Project Officer or another NRC representative may monitor selected courses pursuant to the requirements of the contract to ensure that the quality of instruction and

materials are adequate, up-to-date, and meet the course requirements. As a minimum, the quality of the instruction will be evaluated on the instructor's ability to:

- (1) Maintain control of the learning time so that the presentation of information and exercises remain organized and timely, key points and course objectives are met, and breaks are provided within the overall course schedule.
- (2) Control distractions, such as questions that are of minimal interest to the class as a whole and that can be answered later and/or individually
- (3) Observe the effect of the instruction on the class and reasonably attempt to clarify, provide examples, or in some way, direct the course to help correct problems and improve the participants opportunity to learn.
- (4) Improve materials and correct errors or other problems that may occur during a course.

# B.3.14 Meetings and Travel

Within 30 days of contract award, a meeting will be held at the NRC's Technical Training Center, Chattanooga, TN with the NRC Project Officer, NRC technical representatives and key contractor personnel to discuss the Course outlines, lesson objectives and material preparation.

#### B.3.15 Subcontracts

No subcontracts are anticipated for this contract. the prior written approval of the NRC Contracting Officer.

#### B.4 Course Outline 1

Incident Investigation Team Training Course

#### DAY 1 - MONDAY

8:00 a.m Welcome/Introductions/Orientation	NRC
8:45 a.m History, Goals and Objections of IIP	NRC
9:15 a.m IIT Activation	NRC
10:00 a.m Break	
10:15 a.m Role of the Regions	NRC
10:45 a.m IIT Administrative Support	NRC
11:30 a.m Lunch	
12:30 p.m FOIA and the IIT	NRC

NRC-26-98-263	Section B
1:00 p.m Investigative Process	NRC
2:15 p.m Break	
2:30 p.m OI/OIG	NRC
3:30 p.m Interviewing Process	NRC
4:45 p.m Discuss Evening Assignment	NRC
5:00 p.m Adjourn	
DAY 2 - TUESDAY	
8:00 a.m Allegations and IITs	NRR
8:45 a.m Legal Aspects of IITs	NRC
9:30 a.m Industry Participation	NRC
10:15 a.m Break	
10:30 a.m Industry Perspective/Impact	NRC
11:45 a.m - Lunch	
12:45 p.m Conduct of Investigations	NRC
1:45 p.m IIT Report Preparation	NRC
2:15 p.m Break	
2:30 p.m IIT Experiences and Lessons Learned Panel Discussion	NRC
4:00 p.m IIT Commission Briefing Panel	NRC
4:45 p.m Discuss Evening Assignments	NRC
5:00 p.m Class Pictures	NRC
DAY 3 - WEDNESDAY	
8:00 a.m Proposed Follow up Staff Actions	NRC
8:45 a.m Team Briefing: Case Studies	Contractor
10:00 a.m Break	
10:15 p.m Media Communications	GPA
11:00 a.m Prepare Fatrance Meeting Team and Press Release Presentations	Breakout Session- Contractor

12:00 p.m. - Lunch

		1:00	p.m.	-	Prepare Entrance Meeting and Press Release Presentation (continued)	Team s Cor	n Breakout ntractor	Session-
		2:00	p.m.	-	Conduct Entrance Meeting	Tear	n Breakout Contracto	
		3:00	p.m.	-	Break			
		3:15	p.m.	-	Conduct Entrance Meeting (continued)	Tear	Breakout Contrac	
		4:00	p.m.	-	Present Fress Release	Теа	ams in Clas	
		4:50	p.m.	-	Discuss Evening Assignment	Cor	ntractor	
		5:00	p.m.	-	Adjourn			
DAY	4	- THU	JRSDAY					
		8:00	a.m.	-	Critique Interview Questions	Cor	ntractor	
		8:30	a.m.	-	Introduction to Events and Causal Factors	Cor	ntractor	
		9:15	a.m.	-	Break			
		9:30	a.m.	-	Begin On-Camera Role-Playing of Class Members Conducting Interviews	Team	ontractor Breakout S Contracto	Session-
	1	2:00	p.m.	80	Lunch			
		1:00	p.m.	-	On-Camera Role-Playing of Class Members Conducting Interviews	Team	Contracto	Session-
		3:30	p.m.	-	Break			
		3:45	p.m.	-	Assessment of Information Obtained From Interviews		Contrac	ctor
		4:50	p.m.	-	Discuss Evening Assignment		Contract	cor
		5:00	p.m.	-	Adjourn			
DA	Y 5	- FR	IDAY					
		8:00	a.m.	-	Critique of Events and Causal Factors		Contract	tor
		9:00	a.m.	-	Review List of Additional Interviewees		Contrac	tor
		9:30	a.m.	-	Break			

Page 14 of 44

	9:45	a.m.	-	Introduction to Change Analysi	s Contractor
	11:00	a.m.	-	Perform Change Analysis Team	Breakout Session- Contractor
	12:00	p.m.	-	Lunch	
	1:00	p.m.	-	Critique Change Analysis	Contractor
	2:00	p.m.	-	Introduction to Energy - Barrier - Target Analysis	Contractor
	2:45	p.m.	-	Break	
	3:00	p.m.	-	Perform Energy - Barrier - Target Analysis	Team Breakout Session- Contractor
	4:00	p.m.	-	Critique Energy - Barrier - Target Analysis	Contractor
	4:50	p.m.	-	Discuss Weekend Assignment	Contractor
	5:00	p.m.	**	Adjourn	
YAC	6 - MOI	NDAY			
	8:00	a.m.	-	Review of Previous week's Results and Information	Contractor
	9:00	a.m.	-	Introduction to Fault Tree Analysis	Contractor
	10:00	a.m.	-	Break	
	10:15	a.m.	-	EDO Perspective	NRC
	10:3	0 a.m.		Perform Fault Tree Analysis	Team Breakout Session- Contractor
	11:15	a.m.	-	Critique Fault Tree Analysis	Contractor
	12:15	p.m.	-	Lunch	
	1:15	p.m.	-	Overall Perspective	NRC
	1:40	p.m.	-	Introduction to Management Oversight and Risk Tree (MORT) (Specific Central Factors)	Contractor
	2:30	p.m.	-	Perform Assigned Sections of MORT Analysis	Team Breakout Session- Contractor
	3:30	p.m.	-	Break	
	3:45	p.m.	-	Critique MORT Analysis	Contractor

Page 15 of 44

	4:50	p.m.	-	Discuss Evening Assignment	Contractor
	5:00	p.m.	-	Adjourn	
DAY	7 - TUE	ESDAY			
	8:00	a.m.	-	Continue MORT Discussion (Management System Factors)	Contractor
	9:00	a.m.		Perform Assigned MORT Analysis	Team Breakout Session- Contractor
	10:15	a.m.	148	Break	
	10:30	a.m.	-	Critique MORT Analysis	Contractor
	11:30	a.m.	-	Critique Final Interview Questions	Contractor
	12:00	p.m.	-	Lunch	
	1:00	p.m.	-	Conduct Final Interviews	Team Breakout Session- Contractor
	3:00	p.m.	-	Break	
	3:15	p.m.		Conduct Final Interviews (Continued)	Team Breakout Session- Contractor
	4:50	p.m.	-	Discuss Evening Assignment	Contractor
	5:00	p.m.	-	Adjourn	
DAY	8 - WEI	DNESDA	AY	•	
	8:00	a.m.	-	Critique Final Interviews	Contractor
	8:45	a.m.	-	Integration of Information	Contractor
	10:00	a.m.	-	Break	
	10:15	a.m.	-	Integration of Information (Continued)	Contractor
	12:00	p.m.	-	Lunch	
	1:00	p.m.	-	Integration of Information (Continued)	Contractor
	1:45	p.m.	-	Root Cause Determination	Contractor
	2:45	p.m.	-	Break	
	3:00	p.m.	-	Finalize Sequence of Events Findings and Conclusions	Team Breakout Session- Contractor

Page 16 of 44

	4:50	p.m.	-	Discuss Evening Assignment	Contra	actor			
	5:00	p.m.	-	Adjourn					
DAY 9 - THURSDAY									
	8:00	a.m.	-	Preparations for Commission Briefing		reakout Session- ractor			
	10:00	a.m.		Break					
	10:15	a.m.	-	Preparations For Commission Briefing (Continued)		reakout Session tractor			
	12:00	p.m.	-	Lunch					
	1:00	p.m.	-	Critique of Commission Briefin	g Cor	ntractor			
	3:00	p.m.	-	Break					
	3:15	p.m.	-	Review of Techniques Learned and Information Attained Throughout Course	Conti	ractor			
	4:50	p.m.	-	Discuss Evening Assignment	NRC,	Contractor			
	5:00	p.m.	-	Adjourn					
DAY	10 - FI	RIDAY							
	8:00	a.m.	-	Commission Briefing	NRC,	Contractor			
	8:55	a.m.	-	Break					
	9:00	a.m.	-	Commission Briefing	NRC,	Contractor			
	10:25	a.m.	-	Break					
	10:40	a.m.	-	Commission Briefing	NRC,	Contractor			
	12:00	p.m.		Course Evaluation	NRC				

## B.5 Course Outline 2

12:30 p.m. - Adjourn

IIT Refresher Course

DAY 1

8:30 a.m. GREETINGS AND INTRODUCTIONS 15 min. NRC
IIT PROGRAM AND PROCEDURES

Page 17 of 44

8:45 a.m. - History, Status, Objectives 20 min. NRC of Program

9:05 a.m. - Program/Procedure Changes

10 min. NRC

NUREG-1303 (Rev 1)

10 min.

Admin. Procedures

7.5 min.

AEOD Administrative Manager 7.5 min.

IG's role in an IIT Inspection 15 min.

9:45 a.m. - Break

REVIEW OF IIT BASIC ANALYTICAL TECHNIQUE

10:00 a.m. - Change Analysis

Contractor

o Review of concept including how to apply, when to use, its usefulness and limitations.

10 min.

o Introduce an example and have class class break up to apply concept

15 min.

o Class participants present their results, discuss, instructor critiques.

15 min.

10:40 a.m. - Break

11:35 a.m. - Lunch

45 min.

12:20 p.m. - Fault Tree Analysis-

Contractor

o Review concept including how to apply, when to use, usefulness and limitations.

15 min.

o Introduce an example and have class break up to apply concept. 15 min.

o Class participants present their results, discuss, instructor critiques.

15 min.

1:15 p.m. - Break

1:20 p.m. - Events and Casual Factors Contractor Analysis

o Review concept, including how to apply, when to use, its usefulness and limitations, review guidelines on how to set up.

20 min.

o Introduce example and have class break up to apply concept.

30 min.

2:10 p.m. - Break

15 min.

2:25 p.m. - Events and Causal Factor Analysis (Contd..)

o Class participants present their results, discuss, instructor critiques.

40 min.

3:05 p.m. - Team Breakout to work on Accident Scenario

120 min.

DAY 2

8:30 a.m. - Mort Analysis

Contractor

o Review concept, including how to apply, when to use, its usefulness and limitations.

30 min.

o Review Mort Chart and how to use. 45 min.

10:00 a.m. - Break

15 min.

10:15 a.m. - Mort Analysis (Contd.)

o Introduce an example and have class break up to apply concept.

60 min.

11:15 a.m. - Break

15 min.

11:30 a m. - Mort Analysis (Contd.)

Class participants present their results, discuss, instructor critiques.

45 min.

12:15 p.m. - Lunch

1:15 p.m. - Drawing Conclusions

Contractor

o How to integrate information from analyses techniques to develop findings and conclusions. How to handle conflicting information. What is a finding vs a conclusion.

20 min.

o Class breaks up and reviews information gained through analytical techniques and develops a list of facts and conclusions.

2:05 p.m. - Break

15 min.

30 min.

2:20 p.m. - Drawing Conclusions (Contd.)

o Class participants present their results, discuss, instructor critiques. 30 min.

2:50 p.m. - Investigation Techniques Overview/Review Contractor

3:00 p.m. - Team Breakout to Work on Accident Scenario

120 min.

#### DAY 3

#### IIT PROCEDURES REVIEW

8:30 a.m. - Activating an II 20 min. NRC

- o Brief Review of process
- o CAL Requirements o AEOD Support
- o Regional Support

8:50 a.m. - Conduct of Investigation 30 min. NRC

- o Team Leader Responsibilities o Initial Actions by Team Leader
- o Entrance Meeting
- o Plant Tour
- o Interviewing
- o Sequence of Events o Quarantined Equipment
- o Press Inquiries
- o Status Reports o Record-keeping Activities
- o Referral of Investigative Information

9:20 a.m. - Interviewing Techniques 60 min. Contractor

- o Show video of example interview
- o Interviewing Exercise

10 min. 10:20 Break

10:35 a.m. - NRC Public Affairs Policy 15 min. NRC

10:50 a.m. - IIT Report and Follow-up Actions 40 min. NRC

15 min. o IIT Report o Developing Staff Actions o Documenting Lessons Learned o Total Time Commitment 15 min. 5 min. 5 min.

11:20 a.m. - Legal Aspects of IITs 15 min. NRC

EXPERIENCES OF RECENT IIT'S

11:40 a.m. - IIT Leader Panel with Q&A 45 min. NRC

CLOSURE

12:20 p m. - Complete Course Evaluations 10 min. NRC

#### B.6 Course Outline 3

Root Cause/Incident Investigation Workshop

DAY 1

Introductions: Introduction of the participants and instructor(s). Introduction to the workshop: concepts, methods, exercises, outcomes, and expectations.

Events and Causal Factors Analysis. Guidelines, symbols and directions for sequencing an accident on events and causal factors chart.

Interviewing Witnesses. How to conduct an information gathering interview. Including the opening of the interview, question types and sequences, and closing the interview. Also a discussion of handling different types of interviewees, e.g., hostile, talkative, quiet, etc.

### Laboratory:

- 1. Preliminary Events & Causal Factors
- 2. Identify key questions

DAY 2

Presentation of Events and Causal Factors Chart. Participants present discuss events and causal factors chart; instructor(s) critiques.

Failure Recognition and Analysis. Discussion of how to increase ability to detect typical hardware failure signs, gather and preserve evidence of hardware failure, and trace hardware failures to causal factors in the accident sequence.

Energy-Barrier-Target Analysis. Direction is provided into how to identify and analyze problems in terms of energies (hazards), targets, and barriers.

Change Analysis. Exploration of the role of change in accidents and a model for identifying elements of change.

Analytic Trees. Description of analytic trees: uses, principles of construction, parts, examples, symbols.

#### Laboratory:

 Perform an EBT Analysis, Change Analysis, and Fault Tree on three problems identified by the Events & Causal Factors (a different problem should be used for each analysis method).

2. Prepare and conduct at least one interview.

#### DAY 3

Presentation of Energy-Barrier-Target, Change Analysis, and Preliminary Fault Tree Analysis. Participants present, discuss; instructor(s) critiques.

MORT Analysis. Discussion and illustration of the Management Oversight and Risk Tree chart.

Root Cause Analysis Model Program. An explanation of the philosophy, organization, structure, procedures, training, and follow-up needed for a state-of-the-art root cause program.

### Laboratory:

- Update the E&CF with the results of the EBT, Change, and Fault Tree Analysis.
- Conduct the preliminary MORT Analysis.
- 3. Prepare and conduct at least 2 interviews.

#### DAY 4

Presentation of Preliminary MORT Analysis. Participants present and discuss the preliminary MORT chart; instructor(s) critiques.

## Laboratory:

- 1. Continue MORT Analysis
- 2. Prepare and conduct final interviews

Assembling Facts and Conclusions. Discussion of how to integrate various types of information into the investigation report, e.g., physical evidence, expert testimony, interviews, etc., also discussion of handling conflicting information.

#### Laboratory:

- 1. Complete all analysis
- 2. Begin preparing the written report

DAY 5

Preparing and Delivering an Oral Briefing. A discussion of how to organize, develop, and structure an oral briefing using the facts and conclusions.

#### Laboratory:

- Assemble Final Written Report:
  - Title page with signatures
  - b. Executive report summary (1 pg.)
  - Summary E&CF (1 pg. 15 symbol max.) List of Facts (arabic)

  - €. List of Conclusions (alpha)
- Assemble Final Analysis
  - Events & Causal Factors (detailed)
  - Energy-Barrier-Target Analysis b.
  - C.
  - Change Analysis Fault Tree Analysis
  - MORT Analysis (complete & annotated) e.
- Assemble Working Papers: 3.
  - Interview schedules and notes
  - Meeting/briefing notes
  - Any outside references (list)
- Oral presentation of the investigation report

Summary, Conclusions, Course Evaluation

#### Course Outline 4 B.7

Human Performance Investigation Process

- Introduction
- o Flow & Techniques
- o Events & Causal Factors Charting, Barrier Analysis
- o Break
- SORTM (Stimulus, Operation, Response, Team Performance, Management)
- o Finding Root Causes
- o Break
- o Examples of Root Cause Analysis
- o Change Analysis and CHAP
- o Lunch
- o Using HPIP to Review a Utility Event Report
- O EXERCISE: Develop Preliminary E&CF Chart
  O EXERCISE: Use SORTM
- o Break
- o EXERCISE: Find Root Causes using HPIP Modules

Page 23 of 44

- o Break o Review Use of HPIP o Course Critique

Teams present results at the end of each exercise.

#### B.8 SUPPLIES OF SERVICES AND PRICES/COSTS

TRAINING PRESENTATION ESTIMATED NO. FIRM FIXED COURSE UNIT PRICE OF PRESENTATIONS\*\* PRICE

(NOTE: For details on development charges for the training courses specified below, the Offeror shall reference Section B.3.4.b of the contract)

- 1. a. Develop training course material for (1) Incident
  Investigation Training Course, (2) Incident Investigation
  Refresher Training Course, (3) Root Cause/Incident
  Investigation Workshop, and (4) Euman Performance
  Investigation Process Training Course (one-time charge).
  Also, attend the Post-Award Conference in Chattanooga,
  TN (see Section B.3.14). TOTAL: \$ -0
  - b. INCIDENT INVESTIGATION TRAINING COURSE PRESENTATIONS (for Baltimore, Maryland area) (unit prices shall include travel costs per course/per fiscal year):

(1)	FY 1999	\$ 60,400	1	\$ 60,400
(2)	FY 2000		0	
(3)	FY 2001	\$ 66,440	1	\$ 66,440
(4)	FY 2002		0	
(5)	FY 2003	\$ 66,440	1	\$ 66,440

TOTAL ESTIMATED AMOUNT FOR COURSE 1: \$ 193,280

2. a. INCIDENT INVESTIGATION REFRESHER TRAINING
COURSE PRESENTATIONS (for Baltimore, Maryland area)
(unit prices shall include travel costs per course)
per fiscal year):

(1)	FY 1999		0		
(2)	FY 2000	\$ 16,390 1		S	16,390
(3)	FY 2001		0		
(4)	FY 2002	\$ 18,029 1		S	18,029
(5)	FY 2003		0		
TOTAL	L ESTIMATED AMOUNT	FOR COURSE 2:		\$	34,419

3. a. ROOT CAUSE/INCIDENT INVESTIGATION WORKSHOP PRESENTATIONS (for NRC Headquarters and at NRC Regional offices (locations listed below) - course(s) at Region 4 is optional and is to be

determined by WRC at later date. Unit prices shall include travel costs per course/per fiscal year as stated below):

#### (1) FY 1999:

(a)	NRC Hdgtrs, Rockville MD	\$	22,748	1	\$ 22,748
	Reg. 1, King of Prussia, PA	\$	23,002	1	\$ 23,002
	Reg. 2, Atlanta, GA	5	20,420	1	\$ 20,420
	Reg. 3, Lisle, IL	\$	23,002	1.	\$ 23,002
	Reg. 4, Arlington, TX			0	

#### (2) FY 2000:

(a) NRC Hdqtrs	\$ 22,748		22,748
(b) Reg. 1	\$ 23,002 \$ 20,420		23,002
(c) Reg. 2 (d) Reg. 3	\$ 23,002		23,002
(e) Reg. 4		0	

#### (3) FY 2001:

(a) NRC Hdgtrs	\$ 24,565	1 \$ 24,565
(b) Reg. 1	\$ 24,845	1 \$ 24,845
(c) Feg. 2	\$ 22,005	1 \$ 22,005
(d) Reg. 3	\$ 24,845	1 \$ 24,845
(e) Reg. 4		0

#### (4) FY 2002:

(a) NRC Hdqrts (b) Reg. 1 (c) Reg. 2 (d) Reg. 3 (e) Reg. 4		5 5	24,565 24,845 22,005 24,845	1	53-53	24,565 24,845 22,005 24,845
--	--	-----	--------------------------------------	---	-------	--------------------------------------

#### (5) FY 2003:

(a) NRC Hdgrts (b) Reg. 1 (c) Reg. 2 (d) Reg. 3 (e) Reg. 4	S 24,565 S 24,845 S 22,005 S 24,845	1 \$	24,565 24,845 22,005 24,845
--	--	------	--------------------------------------

TOTAL ESTIMATED AMOUNT FOR COURSE 3: \$ 467,124

HUMAN PERFORMANCE INVESTIGATION PROCESS TRAINING COURSE PRESENTATIONS (for Headquarters and at WRC regional offices - exact regional offices to be determined by NRC at later date. Unit prices shall include travel costs per course/per fiscal year as stated below):

#### (1) FY 1999:

1 \$ 6,075 (a) NRC Hdqrts \$ 6,075

C-26-98-263			Sec	tion B
(b) Reg. 1 (c) Reg. 2 (d) Reg. 3 (e) Reg. 4	\$	6,075	1 0 0 0	\$ 6,075
(2) FY 2000:				
(a) NRC Hdqtrs (b) keg. 1 (c) Reg. 2 (d) Reg. 3 (e) Reg. 4	\$	6,075 4,325	1 0 1 0	\$ 6,075 \$ 4,325
(3) FY 2001:				
(a) NRC Hdqtrs (b) Reg. 1 (c) Reg. 2	\$	6,682	1 0 0	\$ 6,682
(d) Reg. 3 (e) Reg. 4	\$	6,682	1 0	\$ 6,682
(4) FY 2002:				
(a) NRC Hdqtrs (b) Reg. 1 (c) Reg. 2 (d) Reg. 3	\$	6,682	1 0 0	\$ 6,682
(e) Reg. 4	\$	6,682	1	\$ 6,682
(5) FY 2003:				
(a) NRC Hdqtrs (b) Reg. 1 (c) Reg. 2 (d) Reg. 3 (e) Reg. 4	\$ \$	6,682 6.682	1 0 0 0	\$ 6,682
TOTAL ESTIMATED AMOUNT FOR	COURS	E 4:	\$ 6	52,642
GRAND TOTAL AMOUNT: (Fixed Prices for training include minor training coas defined in Section C	ng cour ourse c State	ses hanges ment of Wor		57,465

NRC

\*\*As stated in Section B.3.10 of this solicitation, "NRC anticipates 1 presentation of the Incident Investigation Training Course or 1 presentation of the Incident Investigation Refresher Training Course every other year. Approximately 4 presentations of the Root Cause/Incident Investigation Workshop and 2 Human Performance Investigation Process Courses will be anticipated each year."

Actual quantity of training courses may vary and may be ordered as necessary in accordance with Section C.4, based on student demand.

Course dates will be scheduled in accordance with Section B.3.10, Course Scheduling.

NOTE: FY = Fiscal Year = October 1 through September 30.

## B.9 2052.212-70 PREPARATION OF TECHNICAL REPORTS

All technical reports required and all Technical Progress Reports required by Section B are to be prepared in accordance with the attached Management Directive 3.8, "Unclassified Contractor and Grantee Publications in the NUREG Series." Management Directive 3.8 is not applicable to any Contractor Spending Plan (CSP) and any Financial Status Report that may be included in this contract. (See Section D for List of Attachments).

#### B.10 TECHNICAL PROGRESS REPORT

During a period when course development or modification is underway, the Contractor shall provide a monthly Technical Progress Report to the NRC Project Officer with a copy to the Contracting Officer. The report is due within fifteen (15) calendar days after the end of the report period and shall identify the title of the project, the contract number, Financial Identification Number (FIN), project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report shall include the following for each delivery order:

- (a) A listing of the efforts completed during the period, and milestones reached or, if missed, an explanation provided;
- (b) Any problems or delays encountered or anticipated and recommendations for resolution. If the recommended resolution involves a contract modification, e.g., change in work requirements, level of effort (cost) or schedule delay, the contractor shall submit a separate letter to the contracting officer identifying the required change and estimated cost impact.
- (c) A summary of progress to date; and
- (d) Plans for the next reporting period.

#### B.11 FINAL REPORT

The Contractor shall furnish a final report by the end date of the contract. Five (5) copies shall be sent to the Project Officer and one (1) copy to the Contract Specialist. The report shall include as a minimum:

a. A technical report of the work completed;

b. Any problems or delays encountered and their solutions; and

c. Recommendations for improvements.

The final report and transfer of all Government furnished materials and all contractor developed materials shall be done prior to the contract expiration date.

### B.12 GOVERNMENT FURNISHED EQUIPMENT/PROPERTY (JUNE 1988)

- (a) The NRC will furnish the Contractor with the following:
- (1) Copies of existing non-proprietary course materials (manuals, graphics, etc.) necessary to support presentation of the existing Human Performance Investigation Process in its current format; and
- (2) Student registration forms and a course evaluation sheet to be filled out by each student (to be provided to the Contractor at the time of each course presentation).
- (b) Only the equipment/property listed above in the quantities shown will be provided by the Government. This property is subject to the provisions of the Government Property clause under this contract. All other equipment/property required in performance of the contract shall be furnished by the Contractor.

#### B.13 2052.215-70 KEY PERSONNEL

(a) The following individuals are considered to be essential to the successful performance of the work hereunder:

Kenneth Elsea, President Dorian Conger, General Manager

The contractor agrees that personnel may not be removed from the contract work or replaced without compliance with paragraphs (b) and (c) of this section.

- (b) If one or more of the key personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the contractor shall immediately notify the contracting officer and shall, subject to the concurrence of the contracting officer, promptly replace the personnal with personnel of at least substantially equal ability and qualifications.
- (c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the contracting officer to evaluate the proposed substitution. The contracting officer or

his/her authorized representative shall evaluate the request and promptly notify the contractor of his or her approval or disapproval in writing.

(d) If the contracting officer determines that suitable and timely replacement of key personnel who have been reassigned, terminated, or have otherwise become unavailable for the contract work is not reasonably forthcoming, or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the contract or the service order, the contract may be terminated by the contracting officer for default or for the convenience of the Government, as appropriate. If the contracting officer finds the contractor at fault for the condition, the contract price or fixed fee may be equitably adjusted downward to compensate the Government for any resultant delay, loss, or damage.

#### B.14 2052.215-71 PROJECT OFFICER AUTHORITY

(a) The contracting officer's authorized representative hereinafter referred to as the project officer for this contract is:

Name: Lee Miller

Address: U.S. Nuclear Regulatory Commission

Technical Training Center 5746 Marlin Road, Suite 200 Chattanooga, TN 37411-5677

Telephone Number: (423) 355-6510

- (b) Performance of the work under this contract is subject to the technical direction of the NRC project officer. The term technical direction is defined to include the following:
- (1) Technical direction to the contractor which shifts work emphasis between areas of work or tasks, fills in details, or otherwise serves to accomplish the contractual statement of work.
- (2) Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.
- (3) Review and, where required by the contract, approval of technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government under the contract.
- (c) Technical direction must be within the general statement of work stated in the contract. The project officer does not have the authority to and may not issue any technical direction which:
- (1) Constitutes an assignment of work outside the general scope of

the contract.

- (2) Constitutes a change as defined in the "Changes" clause of this contract.
- (3) In any way cause an increase or decrease in the total estimated contract cost, the fixed fee, if any, or the time required for contract performance.
- (4) Changes any of the expressed terms, conditions, or specifications of the contract.
- (5) Terminates the contract, settles any claim or dispute arising under the contract, or issues any unilateral directive whatever.
- (d) All technical directions must be issued in writing by the project officer or must be confirmed by the project officer in writing within ten (10) working days after verbal issuance. A copy of the written direction must be furnished to the contracting officer.
- (e) The contractor shall proceed promptly with the performance of technical directions duly issued by the project officer in the manner prescribed by this clause and within the project officer's authority under the provisions of this clause.
- (f) If, in the opinion of the contractor, any instruction or direction issued by the project officer is within one of the categories as defined in paragraph (c) of this section, the contractor may not proceed but shall notify the contracting officer in writing within five (5) working days after the receipt of any instruction or direction and shall request the contracting officer to modify the contract accordingly. Upon receiving the notification from the contractor, the contracting officer shall issue an appropriate contract modification or advise the contractor in writing that, in the contracting officer's opinion, the technical direction is within the scope of this article and does not constitute a change under the "Changes" clause.
- (g) Any unauthorized commitment or direction issued by the project officer may result in an unnecessary delay in the contractor's performance and may even result in the contractor expending funds for unallowable costs under the contract.
- (h) A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect thereto is subject to 52.233-1-Disputes.
- (i) In addition to providing technical direction as defined in paragraph (b) of the section, the project officer shall:
- (1) Monitor the contractor's technical progress, including surveillance and assessment of performance, and recommend to the contracting officer changes in requirements.
- (2) Assist the contractor in the resolution of technical problems

encountered during performance.

(3) Review all costs requested for reimbursement by the contractor and submit to the contracting officer recommendations for approval, disapproval, or suspension of payment for supplies and services required under this contract.

#### B.15 INCORPORATION OF TECHNICAL AND COST PROPOSALS

The Contractor's technical and cost proposals in response to RS-AED-98-263 both dated March 25, 1998 (and travel cost breakdown addendums dated 6/4/98 and 6/9/98, respectively), copies of which are in the posession of both parties to this contract, are incorporated by reference with the same force and effect as if set forth in full text.

In the event of an inconsistency between the terms and conditions of the this contract and the technical and cost proposal (and cost addendums), the inconsistency shall be resolved by giving precedence in the following order:

- (1) the contract (excluding the technical and cost proposal and addendums)
- (2) the technical proposal and cost proposal (and cost addendums)

# B.16 RIGHTS IN DATA - SPECIAL WORKS (FAR 52.227-17) (JUN 1987)

(a) Definitions.

"Data," as used in this clause, means recorded information regardless of form or the medium on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to contract administration, such as financial, administrative, cost or pricing or management information.

"Unlimited rights," as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose whatsoever, and to have or permit others to do so.

- (b) Allocation of rights. (1) The Government shall have -
- (i) Unlimited rights in all data delivered under this contract, and in all data first produced in the performance of this contract, except as provided in paragraph (c) of this clause for copyright.

(c) Copyright. (1) Data first produced in the performance of this contract.

- (i) The Contractor agrees not to assert, establish, or authorize others to assert or establish, any claim to copyright subsisting in any data first produced in the performance of this contract without the prior written permission of the Contracting Officer. When claim to copyright is made, the Contractor shall affix the appropriate copyright notice of 17 U.S.C. 401 or 402 and acknowledgement of Government sponsorship (including contract number) to such data when delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. The Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable, worldwide license for all such data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government.
- (ii) If the Government desires to obtain copyright in data first produced in the performance of this contract and permission has not been granted as set forth in subdivision (c)(1)(i) of this clause, the Contracting Officer may direct the Contractor to establish, or authorize the establishment of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.
- (2) Data not first produced in the performance of this contract. The Contractor shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this contract any data not first produced in the performance of this contract and which contain the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause.
- (d) Release and use restrictions. Except as otherwise specifically provided for in this contract, the Contractor shall not use for purposes other than the performance of this contract, nor shall the Contractor release, reproduce, distribute, or publish any data first produced in the performance of this contract, nor authorize others to do so, without written permission of the Contracting Officer.

Section B

(e) Indemnity. The Contractor shall indemnify the Government and its officers, agents, and employees acting for the Government against any liability, including costs and expenses, incurred as the result of the violation of trade secrets, copyrights, or right of privacy or publicity, arising out of the creation, delivery, publication, or use of any data furnished under this contract; or any libelous or other unlawful matter contained in such data. The provisions of this paragraph do not apply unless the Government provides notice to the Contractor as soon as practicable of any claim or suit, affords the Contractor an opportunity under applicable laws, rules, or regulations to participate in the defense thereof, and obtains the Contractor's consent to the settlement of any suit or claim other than as required by final decree of a court of competent jurisdiction; nor do these provisions apply to material furnished to the Contractor by the Government and incorporated in data to which this clause applies.

# B.17 52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR (APR 1984)

Funds are not presently available for performance under this contract. The Government's obligation for performance of this contract is contingent upon the availability of FY 1999 appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract, until funds are made available to the Contracting Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing by the Contracting Officer.

## B.18 2052.215-82 TRAVEL REIMBURSEMENT-ALTERNATE 1

- (a) The contractor is encouraged to use Government contract airlines, AMTRAK rail services, and discount hotel/motel properties in order to reduce the cost of travel under this contract. The contracting officer shall, upon request, provide each traveler with a letter of identification which is required in order to participate in this program. The Federal Travel Directory (FTD) identifies carriers, contract fares, schedules, payment conditions, and hotel/motel properties which offer their services and rates to Government contractor personnel traveling on official business under this contract. The FTD, which is issued monthly, may be purchased from the U.S. Government Printing Office, Washington, DC 20402.
- (b) The contractor will be reimbursed for reasonable travel costs incurred directly and specifically in the performance of this contract. The cost limitations for travel costs are determined in accordance with the specific travel regulations cited in FAR 31.205-46, as are in effect on the date of the trip. Travel costs

for research and related activities performed at State and nonprofit institutions, in accordance with section 12 of Public Law 100-679, shall be charged in accordance with the contractor's institutional policy to the degree that the limitations of Office of Management and Budget (OMB) guidance are not exceeded. Applicable guidance documents include OMB Circular A-87, Cost Principles for State and Local Governments; OMB Circular A-122, Cost principles for Nonprofit Organizations; and OMB Circular A-21, Cost Principles for Educational Institutions.

(c) When the Government changes the Federal Travel Regulations, or other applicable regulations, it is the responsibility of the contractor to notify the contracting officer in accordance with the Limitations of Cost clause of this contract if the contractor will be unable to make all of the approved trips and remain within the cost and fee limitations of this contract due to the changes.

### B.19 2052.215-83 TRAVEL APPROVALS

- (a) All domestic travel requires the prior approval of the project officer.
- (b) All foreign travel must be approved in advance by the NRC on NRC Form 445 and must be in compliance with FAR 52.247-63, Preference for U.S. Flag Air Carriers. Foreign travel approval must be communicated in writing through the contracting officer.

## B.20 ORDERING PROCEDURES (MAY 1991)

- (a) In addition to the Contracting Officer, the Project Officer is authorized to issue delivery orders under this contract.
- (b) All delivery orders shall be prepared in accordance with FAR 16.505(a)(6) on Optional Form 347 and may be issued in writing or by written facsimile telecommunications.

## B.21 ELECTRONIC PAYMENT

The Debt Collection Improvement Act of 1996 requires that all payments except IRS tax refunds be made by Electronic Funds Transfer. It is the policy of the Nuclear Regulatory Commission to pay vendors by the Automated Clearing House (ACH) electronic funds transfer payment system. The electronic system is known as Vendor Express. Payment shall be made in accordance with FAR 52.232-33, entitled, "Mandatory Information for Electronic Funds Transfer Payment."

To receive payment, the Contractor shall complete the "Company Information" portion of the Standard Form 3881, entitled "ACK Vendor/Miscellaneous Payment Enrollment Form" found in Section J. The Contractor shall take the form to the ACH Coordinator at the

financial institution that maintains its company's bank account. The Contractor shall discuss with the ACH Coordinator how the payment identification information (addendum record) will be passed to them once the payment is received by the financial institution. To ensure that adequate payment information will be available to the Contractor, the Contractor should inform the financial institution that the addendum record must not be stripped from the payment. Further information concerning the addendum is provided at Attachment 4. The ACH Coordinator should fill out the "Financial Institution Information" portion of the form and return it to the Office of the Controller at the following address: Nuclear Regulatory Commission, Division of Accounting and Finance, Financial Operations Section, Mail Stop: T-9-H-4, Washington, DC 20555, ATTN: ACH/Vendor Express. It is the responsibility of the Contractor to ensure that the financial institution returns the completed form to the above cited NRC address. If the Contractor can provide the financial information, signature of the financial institutions ACH Coordinator is not required. The NRC is under no obligation to send reminders. Only after the Office of the Contractor be eligible to receive payments.

Once electronic funds transfer is established for payments authorized by NRC, the Contractor needs to submit an additional SF 3881 only to report changes to the information supplied.

Questions concerning ACH/Vendor Express should be directed to the Financial Operations staff at (301) 415-7520."

# B.22 DURATION OF CONTRACT PERIOD (MAR 1987) ALTERNATE 1 (JUN 1988)

The ordering period for this contract shall commence on October 21, 1998 and will expire October 22, 2003. Any orders issued during this period shall be completed within the time specified in the order, unless otherwise specified herein. (See 52.216-18 - Ordering).

# B.23 REPORTING REQUIREMENTS AND DELIVERABLES

### B.24 Milestones

- (a) Within thirty (30) days of contract award, a meeting will be held at the NRC Technical Training Center as indicated.
- (b) Within sixty (60) days of contract award draft detailed course outlines submitted to the NRC Project Officer for review. The NRC Project Officer will provide written comments and/or approval within fifteen (15) days after receipt from the Contractor.
- (c) Within ninety (90) days of contract award draft course materials (student manuals, etc.) submitted to the NRC Project Officer for review. The NRC Project Officer will provide written comments and/or approval within fifteen (15) days after receipt from the Contractor.

(d) Within one hundred fifty (150) days of contract award - ready for presentation of the first courses.

- (e) The Contractor shall provide to the NRC Project Officer, thirty (30) days prior to the start of the second course (and prior to the start of subsequent courses if revised), a copy of the course materials. The NRC Project Officer will provide written comments and/or approval of the material within fifteen (15) days after receipt from the Contractor. The Contractor shall correct any deficiencies and resubmit the material. NRC approval of the material shall be required at least one (1) week prior to the start of each course.
- (f) After final approval of the current version and each subsequent versions of the course manuals, case studies, and instructor guides by the NRC Project Officer, the Contractor shall deliver computer disc(s) which contain the textual materials to the Project Officer in a WordPerfect 6.1 format or other format mutually agreed on by the Contractor and NRC Project Officer.

## B.25 Course Presentation Reports

Within thirty (30) days of completion of a course presentation, the Contractor shall submit a Course Presentation Report to the NRC Project Officer. The Report shall contain:

- a. A cover letter report discussing accomplishments, problems, and recommendations for improvement;
- b. Summary report of student evaluations of the course; and
- c. Originals of student evaluations.

#### SECTION C - CONTRACT CLAUSES

# C.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This Solicitation incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

www.arnet.gov/far/

FAR NUMBER

TITLE

DATE

52.212-4

CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS

APR 1998

- C.2 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (APR 1998)
- (a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:
  - (1) 52.222-3, Convict Labor (E.O. 11755); and
  - (2) 52.233-3, Protest After Award (31\_U.S.C 3553).
- (b) The Contractor agrees to comply with the FAR clauses in this paragraph (b) which the contracting officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

(Contracting Officer shall check as appropriate.)

- [X] (1) 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).
  - [X] (2) RESERVED.
- [X] (3) 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business Concerns (15 U.S.C. 637 (d) (2) and (3));
- [ ] (4) 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4));

- [ ] (5) 52.219-14, Dimitation on Subcontracting (15 U.S.C. 637(a)(14)).
  - [X] (6) 52.222-26, Equal Opportunity (E.O. 11246).
- [X] (7) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
- [X] (8) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793).
- [X] (9) 52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
  - [X] (10) 52.225-3, Buy American Act--Supplies (41 U.S.C. 10).
- [] (11) 52.225-9, Buy American Act--Trade Agreements Act--Balance of Payments Program (41 U.S.C. 10, 19 U.S.C. 2501-2582).
- [] (13) 52.225-18, European Union Sanctions for End Products (E.O. 12849).
- [] (14) 52.225-19, European Union Sanctions for Services (E.O. 12849).
- [X] (15)(i) 52.225-21, Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program (41 U.S.C 10, Pub. L. 103-187).
  - [ ] (15)(ii) Alternate I of 52.225-21.
- [] (17) 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).-
- [] (16) 52.247-64, Preference for Privately Owned U.S.- Flag Commercial Vessels (46 U.S.C. 1241).
- (c) The Contractor agrees to comply with the FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

(Contracting Officer check as appropriate.)

- [] (1) 52.222-41, Service Contract Act of 1965, As amended (41 U.S.C. 351, et seq.).
- [] (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- [] (3) 52.222-43, Fair abor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
  - [ ] (4) 52.222-44, Fair Labor Standards Act and Service

Contract Act -- Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

- [ ] (5) 52.222-47, SCA Minimum Wages and Fringe Benefits
  Applicable to Successor Contract Pursuant to Predecessor Contractor
  Collective Bargaining Agreement (CBA) (41 U.S.C. 351, et seq.).
- (d) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.
- (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
- (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
- (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.
- (e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) or (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components--
  - (1) 52.222-26, Equal Opportunity (E.O. 11246);
- (2) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (33 U.S.C. 4212);
- (3) 52.222-36, Affirmative Action for Handicapped Workers (29 U.S.C. 793).
- (4) 52.247-64, Preference for Privately Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

# C.3 52.216-18 ORLE ING (OCT 1995)

- (a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the effective date of the contract through the end of the effective period.
- (b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
- (c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued by facsimile or by electronic commerce methods only if authorized in the Schedule.

# C.4 52.216-19 ORDER LIMITATIONS (OCT 1995)

- (a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than one (1), the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.
  - (b) Maximum order. The Contractor is not obligated to honor--
    - (1) Any order for a single item in excess of 30;
    - (2) Any order for a combination of items in excess of 60;
- (3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.
- (c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) above.
- (d) Notwithstanding paragraphs (b) and (c) above, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 5 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items)

called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

## C.5 52.216-21 REQUIREMENTS (OCT 1995) ALTERNATE I (AFR 1984)

NRC-26-98-263

- (a) This is a requirements contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quant ries of supplies or services specified in the Schedule are estimates only and are not purchased by this contract. Except as this contract may otherwise provide, if the Government's requirements do not result in orders in the quantities described as "estimated" or "maximum" in the Schedule, that fact shall not constitute the basis for an equitable price adjustment.
- (b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. Subject to any limitations in the Order Limitations clause or elsewhere in this contract, the Contractor shall furnish to the Government all supplies or services specified in the Schedule and called for by orders issued in accordance with the Ordering clause. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- (c) The estimated quantities are not the total requirements of the Government activity specified in the Schedule, but are estimates of requirements in excess of the quantities that the activity may itself furnish within its own capabilities. Except as this contract otherwise provides, the Government shall order from the Contractor all of that activity's requirements for supplies and services specified in the Schedule that exceed the quantities that the activity may itself furnish within its own capabilities.
- (d) The Government is not required to purchase from the Contractor requirements in excess of any limit on total orders under this contract.
- (e) If the Government urgently requires delivery of any quantity of an item before the earliest date that delivery may be specified under this contract, and if the Contractor will not accept an order providing for the accelerated delivery, the Government may acquire the urgently required goods or services from another source.
- (f) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after 3 months after contract expiration date.

52.232-33 MANDATORY INFORMATION FOR ELECTRONIC AUG 1996 FUNDS TRANSFER PAYMENT

# SECTION D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS

ATTACHMENT NUMBER	TITLE
1	Billing Instructions
2	NRC Handbook 3.8
3	Optional Form 347 - Order for Supplies or Services/348 (continuation sheet)
4	ACH Vendor Enrollment Form