

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING DO-C9	PAGE 1 OF 155
2. CONTRACT NO. NAS3-03003	3. SOLICITATION NO. 03-C6F-01	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)		5. DATE ISSUED November 4, 2002	6. REQUISITION/PURCHASE NO. 210180
ISSUED BY NASA Glenn Research Center 21000 Brookpark Road Cleveland, OH 44135		8. ADDRESS OFFER TO (If other than Item 7) NASA Glenn Research Center FORM Source Evaluation Committee Building 501, Room 104 21000 Brookpark Road Cleveland, OH 44134			

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and (see L.13) copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in N/A until **12:00 noon** local time, on **12/23/02** (date).
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL: <input checked="" type="checkbox"/>	A. NAME Mark Manthey	B. TELEPHONE NO. (NO COLLECT CALLS)			C. EMAIL ADDRESS mark.w.manthey@grc.nasa.gov
		AREA CODE 216	NUMBER 433-2750	EXT. N/A	

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OFFER (Must be fully completed by offeror).

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 120 calendar days (120 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section L, clause No. 52-232-8)	<input checked="" type="checkbox"/> 10 CALENDAR DAYS	<input type="checkbox"/> 20 CALENDAR DAYS	<input type="checkbox"/> 30 CALENDAR DAYS	<input type="checkbox"/> CALENDAR DAYS
	%	%	%	%

14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION), for offerors and related documents numbered and dated:	AMENDMENT NO	DATE	AMENDMENT NO	DATE
	0001	12/02/01	0003	12/16/02
	0002	12/12/02		

5. NAME AND ADDRESS OF OFFEROR Call Henry, Inc. 308 Brevard Avenue, Cocoa, FL 32922	6. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) Henry L. Foster, President
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5B. TELEPHONE NO. (include area code) 321-631-6669	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER <input type="checkbox"/> SUCH ADDRESS IN SCHEDULE	17. SIGNATURE 	18. OFFER DATE 12/23/02
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AWARD (To be completed by Government)

3. ACCEPTED AS TO ITEMS NUMBERED <u>all items</u>	20. AMOUNT <u>(see clause B.3)</u>	21. ACCOUNTING AND APPROPRIATION
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4. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 253(c) ()	23. SUBMIT INVOICES TO ADDRESS SHOWN IN: (4 copies unless otherwise specified)	ITEM 25
5. ADMINISTERED BY (If other than Item 7)	25. PAYMENT WILL BE MADE BY	

NASA Glenn Research Center
Employee and Commercial Payments Branch
21000 Brookpark Road, Mail Stop 500-303
Cleveland, OH 44135

NAME OF CONTRACTING OFFICER (Type or print) Mark W. Manthey	27. UNITED STATES OF AMERICA (Signature of Contracting Officer)	28. AWARD DATE 4/23/03
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IMPORTANT - Award will be made on this Form, or on Standard Form 28, or by other authorized official written notice.

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 SCOPE OF SERVICES TO BE PROVIDED

a) Recurring Services

The contractor shall perform, including providing all necessary materials and equipment (except as expressly provided by the government), all operations, scheduled maintenance, predictive testing and inspection (PT&I), "trouble call" responses, minor service calls, and Computerized Maintenance Management System (CMMS) data input, all as specifically required in Section C, for the firm fixed price amounts specified in Clause B.2, "PRICES." The annual quantities of operations activities, scheduled maintenance, PT&I, trouble calls, and minor service calls required to be performed are itemized in Attachment J-B1.1.

b) Fixed Price Indefinite Delivery/Indefinite Quantity (IDIQ) Services

The contractor shall also perform an indefinite quantity of services ordered through individual Delivery Orders, issued in accordance with Clause H.7, "ORDERING PROCEDURE," and priced according to the relevant hourly labor and mark-up rates specified in Clause B.3, "PRICES," for the firm fixed prices specified in each such order.

(i) A minimum value of \$250,000 will be ordered during each contract year.

(ii) A maximum value of \$4,000,000 may be ordered during each of contract years 1 through 5, and of \$5,000,000 during each of contract years 6 through 10.

c) Fixed Price, Level-of-Effort IDIQ Services

The contractor shall also perform an indefinite quantity of services, ordered in accordance with Clause H.7, on a Fixed Price, Level-of-Effort basis, using the relevant hourly rates specified in Clause B.3, "PRICES." A minimum amount of 2,000 hours and a maximum amount of 10,000 hours of such orders will be ordered during each contract year.

B.2 VARIATION IN QUANTITIES

a) Within 60 calendar days of the award of this contract, the Government may adjust the contract prices, based on the unit prices shown in Attachment J-E3.1, "UNIT PRICES," to reflect the inventory, current as of the start date of this contract, of

systems equipment and components for which scheduled maintenance or operations is required under this contract. A unilateral contract modification would be issued by the Government to adjust the estimated annual quantities specified in Attachment J-B1.1 and the related prices in Clause B.4, adjusted according to (b) below, except that if the quantity of any item is changed by more than 50%, the related price adjustment(s) must be negotiated with the contractor.

- b) Notwithstanding the initial notification required in (a) above, an equitable adjustment, based on the associated unit price listed in Attachment J-E3.1, "Unit Prices," adjusted according to the schedule below, will be made for any actual annual required quantity of Trouble Calls, minor service calls, or individual scheduled maintenance or PT&I activity which is either greater than 110 percent or less than 90 percent of the estimated annual quantities shown in Attachment J-B1.1. The unit price to be used for increases or decreases in actual quantities will be determined as follows:

Percentage Variance	Unit Price Adjustment for Increases	Unit Price Adjustment for Decreases
10-20%	%	%
20-30%	%	%
30-50%	%	%

The adjustment will be an increase or decrease to the contract price(s) for the relevant fixed price requirements. The amount of the price increase or decrease will be the product of (1) the difference between the actual annual quantity and 90% (for decreases) or 110% (for increases) of the estimated annual quantity, and (2) the applicable adjusted unit price.

(c) Actual annual required quantities of Recurring Services will be determined by the Government's Computerized Maintenance Management System (CMMS), more fully described in section C.5.2., which the Government will continually update to reflect the addition or deletion of equipment and system components for which scheduled services are required under this contract. The CMMS will also serve as the basis for determining the actual number of trouble calls and minor service calls issued and completed.

B.3 PRICES

a. CONTRACT YEAR 1

(1) Contract Phase-in: \$263,043

(2) Firm Fixed Prices for Recurring Services

<u>SOW</u> <u>Section</u>	<u>Section Title</u>	<u>Annual</u> <u>Price</u>
C5a	Trouble Calls	\$1,261,888
C5b	Minor Service Requests	\$183,414
C8	Energy Management Control, Life Safety, and Security Systems	\$861,181
C9	Electrical Distribution System	\$1,569,917
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$178,069
C12	Grounds, Surfaced Areas, and Pest Control	\$405,412
C13	Buildings and Structures	\$2,206
C14	Heating Plants and Hot Water Boilers	\$1,030,661
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$954,482
C16	Utility Distribution Systems	\$151,285
C17	Maintenance-Related Environmental Systems	\$-

(3) Hourly Rates for Delivery Order Pricing

<u>Labor Category</u>	<u>Straight-</u> <u>Time</u>	<u>Overtime</u>	<u>Doubletime</u>
Maintenance Trades Journeyman	34.86	41.13	54.83
Maintenance Trades Helper	29.44	33.00	44.00
High-Voltage Electrician Apprentice	30.61	40.51	55.37
High-Voltage Electrician Journeyman	50.88	70.32	93.60
Stationery Engineer	35.59	42.21	56.28
Stationery Engineer/Mechanical/Control	37.03	44.38	59.03
Steam Plant Maintenance	37.03	44.38	59.03
Steam Plant Helper	31.76	36.48	48.64
Grounds Maintenance Laborer	31.14	35.54	47.38
Heavy Equipment Operator	35.39	41.92	55.90
Grounds Maintenance Lead	32.50	37.58	50.11
Incidental Engineering	52.35	66.63	87.52

(4) Burden Rates for Delivery Order Pricing

Material:	6%
Equipment:	6%

b. CONTRACT YEAR 2

(1) Firm Fixed Prices for Recurring Services

<u>SOW Section</u>	<u>Section Title</u>	<u>Annual Price</u>
C5a	Trouble Calls	\$1,146,624
C5b	Minor Service Requests	\$158,609
C8	Energy Management Control, Life Safety, and Security Systems	\$839,598
C9	Electrical Distribution System	\$1,501,402
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$166,397
C12	Grounds, Surfaced Areas, and Pest Control	\$396,426
C13	Buildings and Structures	\$2,070
C14	Heating Plants and Hot Water Boilers	\$1,016,001
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$825,199
C16	Utility Distribution Systems	\$139,464
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

<u>Labor Category</u>	<u>Straight-Time</u>	<u>Overtime</u>	<u>Doubletime</u>
Maintenance Trades Journeyman	35.74	42.44	56.58
Maintenance Trades Helper	30.15	34.05	45.40
High-Voltage Electrician Apprentice	31.17	41.35	56.92
High-Voltage Electrician Journeyman	52.00	71.89	95.70
Stationery Engineer	36.48	43.55	57.99
Stationery Engineer/Mechanical/Control	37.98	45.80	60.79
Steam Plant Maintenance	37.98	45.80	60.79
Steam Plant Helper	32.83	38.07	50.76
Grounds Maintenance Laborer	31.89	36.66	48.87
Heavy Equipment Operator	36.26	43.22	57.58
Grounds Maintenance Lead	33.25	38.71	51.61
Incidental Engineering	54.25	68.53	90.06

(3) Burden Rates for Delivery Order Pricing

Material:	6%
Equipment:	6%

c. CONTRACT YEAR 3

(1) Firm Fixed Prices for Recurring Services

SOW Section	Section Title	Annual Price
C5a	Trouble Calls	\$1,186,048
C5b	Minor Service Requests	\$163,977
C8	Energy Management Control, Life Safety, and Security Systems	\$874,755
C9	Electrical Distribution System	\$1,528,645
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$173,387
C12	Grounds, Surfaced Areas, and Pest Control	\$407,341
C13	Buildings and Structures	\$2,145
C14	Heating Plants and Hot Water Boilers	\$1,053,009
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$853,560
C16	Utility Distribution Systems	\$144,483
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

Labor Category	Straight-Time	Overtime	Doubletime
Maintenance Trades Journeyman	36.82	43.35	57.79
Maintenance Trades Helper	30.94	34.70	46.26
High-Voltage Electrician Apprentice	31.48	41.36	56.52
High-Voltage Electrician Journeyman	52.73	72.60	98.18
Stationery Engineer	37.60	44.50	59.32
Stationery Engineer/Mechanical/Control	39.19	46.84	62.44
Steam Plant Maintenance	39.19	46.84	62.44
Steam Plant Helper	33.75	38.84	51.78
Grounds Maintenance Laborer	32.39	36.83	49.10
Heavy Equipment Operator	37.00	43.61	58.15
Grounds Maintenance Lead	33.78	38.88	51.84
Incidental Engineering	57.12	71.59	95.45

(3) Burden Rates for Delivery Order Pricing

Material: 6%
Equipment: 6%

d. CONTRACT YEAR 4 (OPTION YEAR 1)

(1) Firm Fixed Prices for Recurring Services

<u>SOW</u> <u>Section</u>	<u>Section Title</u>	<u>Annual</u> <u>Price</u>
C5a	Trouble Calls	\$1,206,784
C5b	Minor Service Requests	\$167,250
C8	Energy Management Control, Life Safety, and Security Systems	\$893,429
C9	Electrical Distribution System	\$1,522,185
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$191,928
C12	Grounds, Surfaced Areas, and Pest Control	\$410,658
C13	Buildings and Structures	\$2,183
C14	Heating Plants and Hot Water Boilers	\$1,073,961
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$872,573
C16	Utility Distribution Systems	\$147,139
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

<u>Labor Category</u>	<u>Straight-</u> <u>Time</u>	<u>Overtime</u>	<u>Doubletime</u>
Maintenance Trades Journeyman	37.79	44.58	59.28
Maintenance Trades Helper	31.80	35.60	47.46
High-Voltage Electrician Apprentice	31.20	41.39	56.98
High-Voltage Electrician Journeyman	52.05	71.97	95.81
Stationery Engineer	38.59	45.77	60.76
Stationery Engineer/Mechanical/Control	40.20	48.19	63.76
Steam Plant Maintenance	40.20	48.19	63.76
Steam Plant Helper	34.68	39.91	53.20
Grounds Maintenance Laborer	32.93	37.28	49.70
Heavy Equipment Operator	37.62	44.31	58.95
Grounds Maintenance Lead	34.29	39.33	52.43
Incidental Engineering	58.98	72.51	95.35

(3) Burden Rates for Delivery Order Pricing

Material: 6%
Equipment: 6%

e. CONTRACT YEAR 5 (OPTION YEAR 2)

(1) Firm Fixed Prices for Recurring Services

<u>SOW Section</u>	<u>Section Title</u>	<u>Annual Price</u>
C5a	Trouble Calls	\$1,241,600
C5b	Minor Service Requests	\$172,326
C8	Energy Management Control, Life Safety, and Security Systems	\$924,325
C9	Electrical Distribution System	\$1,531,284
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$183,991
C12	Grounds, Surfaced Areas, and Pest Control	\$416,467
C13	Buildings and Structures	\$2,254
C14	Heating Plants and Hot Water Boilers	\$1,093,621
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$897,992
C16	Utility Distribution Systems	\$151,843
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

<u>Labor Category</u>	<u>Straight-Time</u>	<u>Overtime</u>	<u>Doubletime</u>
Maintenance Trades Journeyman	\$39.25	\$46.75	\$61.97
Maintenance Trades Helper	\$32.32	\$36.36	\$48.47
High-Voltage Electrician Apprentice	\$31.21	\$41.42	\$57.02
High-Voltage Electrician Journeyman	\$52.08	\$72.02	\$95.88
Stationery Engineer	\$39.24	\$46.75	\$61.97
Stationery Engineer/Mechanical/Control	\$40.89	\$49.21	\$65.03
Steam Plant Maintenance	\$40.89	\$49.21	\$65.03
Steam Plant Helper	\$35.25	\$40.76	\$54.33
Grounds Maintenance Laborer	\$33.45	\$38.06	\$50.75
Heavy Equipment Operator	\$38.26	\$45.27	\$60.14
Grounds Maintenance Lead	\$34.82	\$40.11	\$53.48
Incidental Engineering	\$61.18	\$74.56	\$98.10

(3) Burden Rates for Delivery Order Pricing

Material: 6%
 Equipment: 6%

f. CONTRACT YEAR 6 (AWARD PERIOD 1)

(1) Firm Fixed Prices for Recurring Services

<u>SOW Section</u>	<u>Section Title</u>	<u>Annual Price</u>
C5a	Trouble Calls	\$1,251,392
C5b	Minor Service Requests	\$174,306
C8	Energy Management Control, Life Safety, and Security Systems	\$946,085
C9	Electrical Distribution System	\$1,539,525
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$184,803
C12	Grounds, Surfaced Areas, and Pest Control	\$419,075
C13	Buildings and Structures	\$2,267
C14	Heating Plants and Hot Water Boilers	\$1,105,401
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$913,303
C16	Utility Distribution Systems	\$152,788
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

<u>Labor Category</u>	<u>Straight-Time</u>	<u>Overtime</u>	<u>Doubletime</u>
Maintenance Trades Journeyman	\$39.29	\$46.81	\$62.06
Maintenance Trades Helper	\$32.35	\$36.41	\$48.54
High-Voltage Electrician Apprentice	\$31.25	\$41.47	\$57.09
High-Voltage Electrician Journeyman	\$52.14	\$72.11	\$96.00
Stationery Engineer	\$39.29	\$46.81	\$62.06
Stationery Engineer/Mechanical/Control	\$40.93	\$49.28	\$65.12
Steam Plant Maintenance	\$40.93	\$49.28	\$65.12
Steam Plant Helper	\$35.29	\$40.81	\$54.40
Grounds Maintenance Laborer	\$33.49	\$38.11	\$50.81
Heavy Equipment Operator	\$38.30	\$45.33	\$60.22
Grounds Maintenance Lead	\$34.86	\$40.17	\$53.55
Incidental Engineering	\$63.54	\$76.73	\$100.99

(3) Burden Rates for Delivery Order Pricing

Material: 6%
Equipment: 6%

g. CONTRACT YEAR 7 (AWARD PERIOD 2)

(1) Firm Fixed Prices for Recurring Services

SOW Section	Section Title	Annual Price
C5a	Trouble Calls	\$1,264,256
C5b	Minor Service Requests	\$176,660
C8	Energy Management Control, Life Safety, and Security Systems	\$970,052
C9	Electrical Distribution System	\$1,550,784
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$186,055
C12	Grounds, Surfaced Areas, and Pest Control	\$422,896
C13	Buildings and Structures	\$2,286
C14	Heating Plants and Hot Water Boilers	\$1,119,947
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$930,560
C16	Utility Distribution Systems	\$154,134
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

Labor Category	Straight-Time	Overtime	Doubletime
Maintenance Trades Journeyman	\$39.32	\$46.86	\$62.12
Maintenance Trades Helper	\$32.38	\$36.45	\$48.59
High-Voltage Electrician Apprentice	\$31.27	\$41.50	\$57.14
High-Voltage Electrician Journeyman	\$52.19	\$72.18	\$96.10
Stationery Engineer	\$39.32	\$46.86	\$62.12
Stationery Engineer/Mechanical/Control	\$40.97	\$49.33	\$65.19
Steam Plant Maintenance	\$40.97	\$49.33	\$65.19
Steam Plant Helper	\$35.32	\$40.85	\$54.46
Grounds Maintenance Laborer	\$33.52	\$38.15	\$50.87
Heavy Equipment Operator	\$38.34	\$45.38	\$60.28
Grounds Maintenance Lead	\$34.89	\$40.21	\$53.61
Incidental Engineering	\$66.01	\$78.94	\$103.94

(3) Burden Rates for Delivery Order Pricing

Material: 6%
 Equipment: 6%

h. CONTRACT YEAR 8 (AWARD PERIOD 3)

(1) Firm Fixed Prices for Recurring Services

<u>SOW</u> Section	Section Title	<u>Annual</u> Price
C5a	Trouble Calls	\$1,277,568
C5b	Minor Service Requests	\$179,102
C8	Energy Management Control, Life Safety, and Security Systems	\$993,970
C9	Electrical Distribution System	\$1,562,373
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$201,742
C12	Grounds, Surfaced Areas, and Pest Control	\$426,881
C13	Buildings and Structures	\$2,305
C14	Heating Plants and Hot Water Boilers	\$1,134,800
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$948,285
C16	Utility Distribution Systems	\$155,535
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

Labor Category	Straight-Time	Overtime	Doubletime
Maintenance Trades Journeyman	\$39.36	\$46.91	\$62.19
Maintenance Trades Helper	\$32.41	\$36.49	\$48.64
High-Voltage Electrician Apprentice	\$31.30	\$41.54	\$57.20
High-Voltage Electrician Journeyman	\$52.23	\$72.26	\$96.20
Stationery Engineer	\$39.36	\$46.91	\$62.19
Stationery Engineer/Mechanical/Control	\$41.01	\$49.38	\$65.26
Steam Plant Maintenance	\$41.01	\$49.38	\$65.26
Steam Plant Helper	\$35.35	\$40.90	\$54.52
Grounds Maintenance Laborer	\$33.55	\$38.19	\$50.92
Heavy Equipment Operator	\$38.37	\$45.43	\$60.35
Grounds Maintenance Lead	\$34.92	\$40.25	\$53.67
Incidental Engineering	\$68.61	\$81.23	\$106.99

(3) Burden Rates for Delivery Order Pricing

Material: 6%
Equipment: 6%

i. CONTRACT YEAR 9 (AWARD PERIOD 4)

(1) Firm Fixed Prices for Recurring Services

<u>SOW</u> <u>Section</u>	<u>Section Title</u>	<u>Annual</u> <u>Price</u>
C5a	Trouble Calls	\$1,291,072
C5b	Minor Service Requests	\$181,577
C8	Energy Management Control, Life Safety, and Security Systems	\$1,021,691
C9	Electrical Distribution System	\$1,574,253
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$188,647
C12	Grounds, Surfaced Areas, and Pest Control	\$430,859
C13	Buildings and Structures	\$2,324
C14	Heating Plants and Hot Water Boilers	\$1,150,435
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$966,749
C16	Utility Distribution Systems	\$156,926
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

<u>Labor Category</u>	<u>Straight-</u> <u>Time</u>	<u>Overtime</u>	<u>Doubletime</u>
Maintenance Trades Journeyman	\$39.39	\$46.96	\$62.26
Maintenance Trades Helper	\$32.44	\$36.53	\$48.69
High-Voltage Electrician Apprentice	\$31.32	\$41.58	\$57.25
High-Voltage Electrician Journeyman	\$52.28	\$72.33	\$96.30
Stationary Engineer	\$39.39	\$46.96	\$62.26
Stationery Engineer/Mechanical/Control	\$41.04	\$49.44	\$65.33
Steam Plant Maintenance	\$41.04	\$49.44	\$65.33
Steam Plant Helper	\$35.38	\$40.94	\$54.58
Grounds Maintenance Laborer	\$33.58	\$38.23	\$50.98
Heavy Equipment Operator	\$38.40	\$45.48	\$60.41
Grounds Maintenance Lead	\$34.95	\$40.29	\$53.73
Incidental Engineering	\$72.74	\$83.58	\$110.11

(3) Burden Rates for Delivery Order Pricing

Material: 6%
Equipment: 6%

j. CONTRACT YEAR 10 (AWARD PERIOD 5)

(1) Firm Fixed Prices for Recurring Services

<u>SOW</u> Section	Section Title	<u>Annual</u> Price
C5a	Trouble Calls	\$1,305,088
C5b	Minor Service Requests	\$184,151
C8	Energy Management Control, Life Safety, and Security Systems	\$1,047,579
C9	Electrical Distribution System	\$1,586,566
C10	Communication Systems	\$-
C11	Personnel and Material Handling Systems	\$190,009
C12	Grounds, Surfaced Areas, and Pest Control	\$435,038
C13	Buildings and Structures	\$2,345
C14	Heating Plants and Hot Water Boilers	\$1,166,470
C15	Heating, Ventilating, Air Conditioning, and Refrigeration Systems	\$985,690
C16	Utility Distribution Systems	\$158,390
C17	Maintenance-Related Environmental Systems	\$-

(2) Hourly Rates for Delivery Order Pricing

Labor Category	Straight-Time	Overtime	Doubletime
Maintenance Trades Journeyman	\$39.43	\$47.02	\$62.33
Maintenance Trades Helper	\$32.47	\$36.57	\$48.75
High-Voltage Electrician Apprentice	\$31.35	\$41.63	\$57.32
High-Voltage Electrician Journeyman	\$52.33	\$72.41	\$96.41
Stationery Engineer	\$39.43	\$47.02	\$62.33
Stationery Engineer/Mechanical/Control	\$41.09	\$49.50	\$65.41
Steam Plant Maintenance	\$41.09	\$49.50	\$65.41
Steam Plant Helper	\$35.41	\$40.99	\$54.64
Grounds Maintenance Laborer	\$33.61	\$38.28	\$51.04
Heavy Equipment Operator	\$38.44	\$45.53	\$60.48
Grounds Maintenance Lead	\$34.99	\$40.34	\$53.79
Incidental Engineering	\$75.65	\$86.00	\$113.34

(3) Burden Rates for Delivery Order Pricing

Material: 6%
Equipment: 6%

SECTION C - DESCRIPTION/SPECIFICATION/WORK STATEMENT

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SECTION C: DESCRIPTION/SPECIFICATION/WORK STATEMENTSECTION C1: GENERAL REQUIREMENTS

1. GENERAL INTENTION

The intention of this solicitation is to obtain facilities operations, repair, and maintenance, services at the National Aeronautics and Space Administration (NASA), Glenn Research Center (GRC) by means of a combination firm fixed-price and fixed-price indefinite quantity contract.

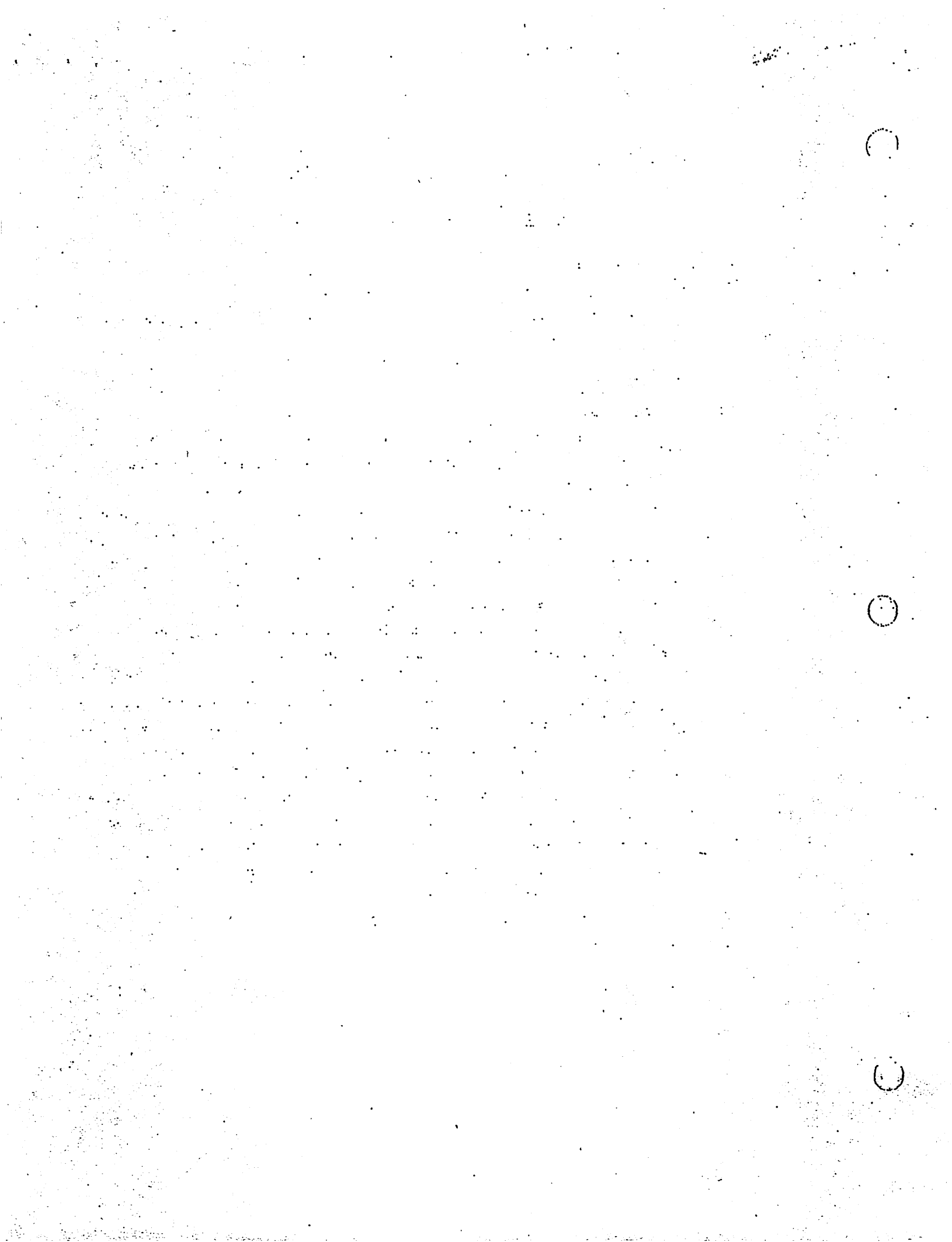
2. GENERAL REQUIREMENTS

- a. The Contractor shall furnish labor, supervision, tools, materials, equipment, engineering, transportation, and management necessary for the maintenance and repair of buildings and structures, research facilities, and related systems and equipment. The firm fixed-price work includes contract management, the performance of Trouble Call (TC) work, minor service requests, recurring work such as Preventive Maintenance (PM), Programmed Maintenance (PGM), and Predictive Testing and Inspection (PT&I), and specified facilities operations. The Contractor shall also furnish specified systems operations services, subcontract administration services, and other miscellaneous services as indicated herein. Attachments J-C8.1 through J-C16.1 describe the systems and equipment to be maintained and operated in this contract. Attachment J-C1.1 is a glossary of the equipment terms used throughout those equipment lists. The indefinite quantity (IQ) work items include Repairs (REP) exceeding trouble call limits, Replacement of Obsolete Items (ROI), Service Requests (SR), and work required on an unscheduled or irregular frequency. Work required by this contract is continuous and repetitive in nature, is accomplished within the framework of comprehensive and detailed short and long term schedules, and requires diligent and continuous program management by the Contractor.

The Contractor shall provide services for the following functions:

Section Function

C8 Energy Management Control, Life Safety, and Security Systems



- C9 Electrical Distribution Systems
- C10 Communication Systems
- C11 Personnel and Material Handling Systems
- C12 Grounds, Surfaced Areas, and Pest Control
- C13 Buildings and Structures
- C14 Heating Plants and Hot Water Boilers
- C15 Heating, Ventilating, Air Conditioning (HVAC) and Refrigeration
- C16 Utility Distribution Systems
- C17 Maintenance Related Environmental Services

Glenn Research Center Workings Hours

The GRC regular working hours are from 6:00 A.M. to 5:30 P.M., Mondays through Fridays except Federal Holidays (any holiday falling on the Saturday will be observed on the preceding Friday, and holidays falling on a Sunday will be observed on the following Monday). Some research facilities may also operate during second shift (normally 3:30 PM through 12:00 PM (midnight)), and third shift (normally 12:00 PM (midnight) through 8:00 AM).

- b. Operations Program. The Contractor shall develop and implement an Operations (OPS) program which shall identify all requirements for safe, efficient operation of; heating plants and outlying boilers, chilled water plants, Life Safety and Security Systems, Energy Management Control System (EMCS), and other utility distribution systems. The OPS program as a minimum shall include watch standing schedules and duties; keeping equipment operating logs; operational testing; and measuring, recording, and reporting of operating data (voltage, current, power demand, kilowatt hours, fuel consumption, etc.). The Contractor shall submit an OPS program for approval 30 days prior to beginning work.

c. Contractor Quality Control (QC)

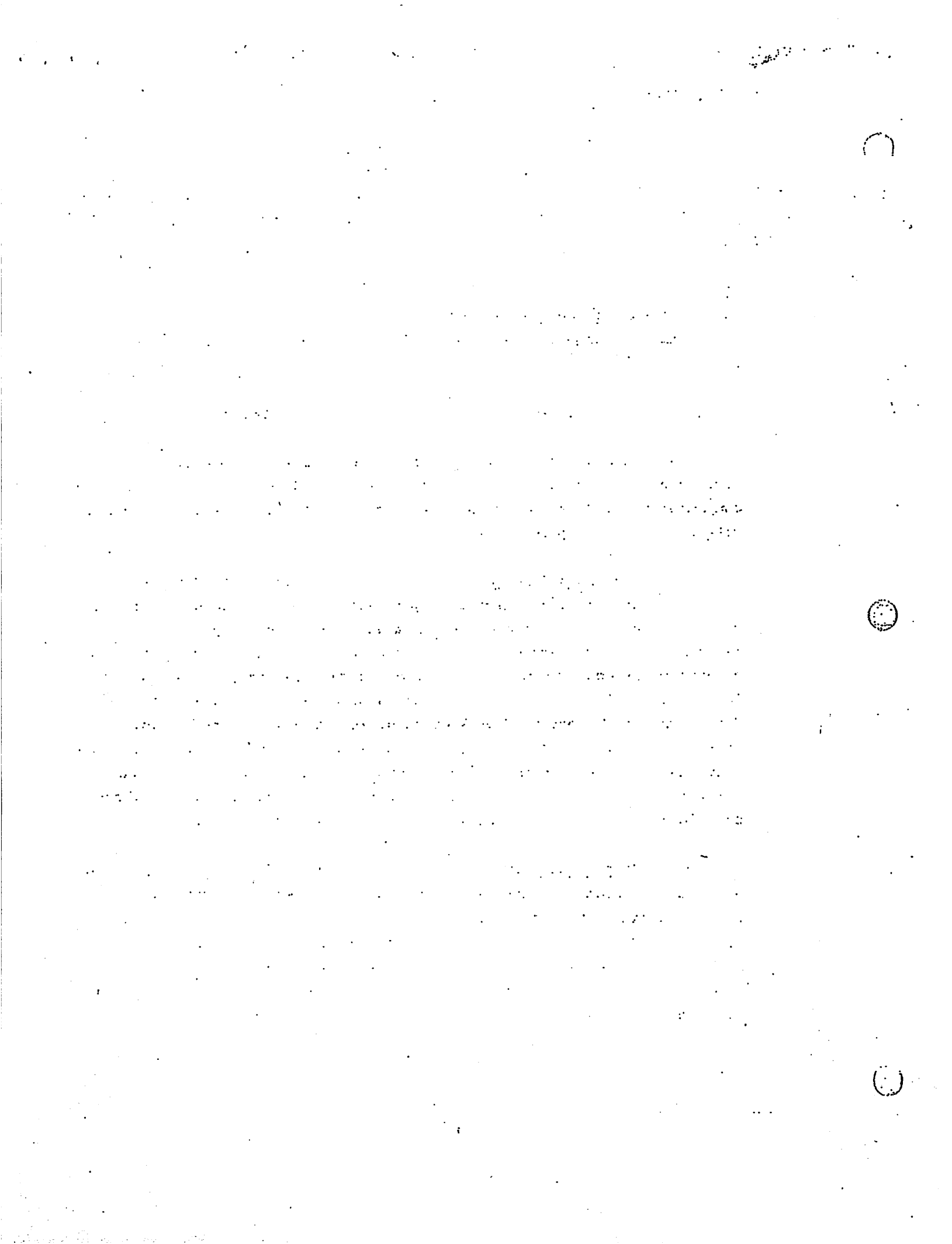
The Contractor shall establish and maintain a Quality Control Program in accordance with the FAR 52.246-4, "INSPECTION OF SERVICES - FIXED PRICE" clause, Section E, to ensure that the work performed under the contract conforms to the contract requirements.

- d. Contractor Licensing, Certification and Specific Experience Requirements. The Contractor shall provide personnel who have the appropriate skills for the work required. The degree of skill of individuals shall be commensurate with that required for the work. Those personnel working in trades whose performance requires license or certification or both, as indicated in Section C8-C17 and the Glenn Safety Manual shall be so licensed/certified and copies must be provided to the COTR prior to commencement of work on this contract. Copies of any required licenses, certificates and experience shall be submitted to the COTR prior to contract start date, and within 1 day upon any personnel change thereafter.
- e. Existing Conditions. The Government makes no representation or guarantee as to the condition of buildings, structures, facilities, and related systems and equipment on the start date of the contract, and no adjustments will be made in contract price relative to facilities condition after contract award. All scheduled maintenance intervals (daily, weekly, quarterly, annually) and next performance due date are as stated in the CMMS.

SECTION C2: DEFINITIONS - TECHNICAL

DEFINITIONS - TECHNICAL. As used throughout this contract, the following terms shall have the meaning set forth below. Additional definitions are in the "DEFINITIONS" clause in Section I.

1. Computerized Maintenance Management System (CMMS). All references to CMMS are to the Government's owned and furnished Computerized Maintenance System.
2. Customer. Person listed as the "Originator" on the CMMS Work Order.
3. Minor Service Request. Service calls of a one-time nature typically for facilities related work that is new in nature and which normally should be completed for \$400 and less in total costs (excluding profit) for labor, materials, and equipment.
4. Predictive Testing and Inspection (PT&I). Those testing and inspection activities for facility items that generally require more sophisticated means to identify maintenance requirements than those of preventive maintenance. For example, specialized tests are used to locate thinning of pipe walls and fractures (e.g., eddy current testing, radio-graphic inspections, ultrasonic testing, television cameras, or aural leak detectors); to detect roof weaknesses or wet insulation areas (e.g., infrared, thermographic viewers, or nuclear density devices); to identify large equipment wear problems (e.g., vibration analyzers, and oil analysis for wear metals and lubricant properties); and to locate charge or heat buildup in electric equipment (e.g., infrared thermography).
5. Preventive Maintenance (PM). The planned, scheduled periodic inspection, adjustment, cleaning, lubrication, parts replacement, and minor repair of equipment and systems for which a specific operator is not assigned. Preventive Maintenance (PM) consists of many check point activities on items that, if disabled would interfere with an essential Center operation, endanger life or property, or involve high cost or long lead time for replacement.



6. Programmed Maintenance (PGM). Programmed maintenance are maintenance tasks whose cycle exceeds one year, such as painting a building every fifth year.
7. Response. To be physically on the premises at the work site, with appropriate tools, equipment, and materials, ready to perform the work required.
8. Service Requests. Service requests are requests for facilities related work that is new in nature.
9. System Outage. Any activity that removes all or part of a system's capacity to function as designed. Outages are generally planned, and are used to facilitate maintenance on a system. An outage would typically require the de-energizing of electrical sources and the isolation of fluid flows to the system. In some cases, an outage may be required on systems near to those being maintained to provide safety to the maintainers.
10. Trouble Call. Unscheduled service calls of a one-time nature typically to repair, adjust, or replace broken or malfunctioning existing equipment.
11. Watch standing. The assignment of qualified personnel to stations and equipment requiring an operator attendant. Watch standees may also perform required operator maintenance.

SECTION C3: PERFORMANCE STANDARDS

1. GENERAL

The following standards are applicable to any and all of the contract requirements, including the recurring requirements, trouble calls, minor service requests, and indefinite quantity work:

a. Quality

(1) Workmanship.

- (a) When the Contractor completes work on a facility, system, or piece of equipment, that facility, system, or equipment shall be free of missing components or defects that would prevent it from functioning as originally designed.
- (b) Corrective, repair and replacement work shall be carried to completion including operational checks and cleanup of the equipment and job site.
- (c) Replacement work shall match previous work in dimensions, finish, color, and design.

(2) Compliance with Codes and Standards.

- (a) All work performed shall conform to all applicable local, state, and federal standards; and all applicable building and safety codes.
- (b) All work performed shall conform to the Glenn Safety, and Environmental Program Manuals.

(3) Materials. The Contractor shall provide new or "factory reconditioned" parts and components. All replacement units, parts, components and materials to be used in the maintenance, repair, and alteration of facilities and equipment shall:

- (a) be compatible with the existing equipment on which it is to be used;
- (b) be of equal or higher quality than original equipment specifications;
- (c) comply with applicable Government, commercial, or industrial standards including National Board of Underwriter's Laboratories, Inc., National Board of Fire Underwriters, National Electrical Manufacturer's Association, American Society of Mechanical Engineers, American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc. (ASHRAE), etc.;

- (d) conform to the applicable brand name requirements listed in Specification Clauses in Sections C8 through C17; and the technical specifications Section C;
 - (e) comply with Material Safety Data (MSD) storage and record keeping requirements;
 - (f) be used in accordance with original design and manufacturer intent. Where indicated in Section C8-C17 the replacements shall match existing manufacturer.
- (4) Cleanliness.
- (a) During work, debris shall not be allowed to spread into adjacent areas nor accumulate in the work area itself.
 - (b) At the completion of the job, debris, excess material, and parts shall be cleaned up and removed from the equipment and job site in appropriate containers in compliance with all federal, state, and local requirements.
 - (c) The Contractor shall maintain all shops, material storage, buildings, structures, and all other areas furnished for the performance of this contract in a clean, neat, orderly, safe, and sanitary condition.

b. Documentation/Reporting

(1) Notification

- (a) Prior to beginning any PM, PGM, or PT&I work in a building, the Contractor shall notify the Building Manager twenty (20) working days in advance and follow the Area Clearance Procedure outlined in the Glenn Safety Manual.
- (b) Prior to beginning any IQ work in a building, the Contractor shall notify the Building Manager five (5) working days in advance and follow the Area Clearance Procedure outlined in the Glenn Safety Manual.
- (c) The Contractor shall notify the Building Manager for entry authorization to restricted areas at least three (3) working days prior to work.
- (d) Planned Outages: When any work other than an emergency trouble call requires an outage or reduction in any system services, the Contractor shall provide at least

ten (10) working days advance notice to the COTR, and Building Manager.

(e) **Emergency and Operational Outages:** The Contractor shall immediately notify the COTR of emergency and unplanned operational outages.

(2) CMMS Reporting

The Contractor shall update information in the CMMS database on a daily basis so that the database accurately reflects the status of the work being performed.

(3) Additional Reporting

Unless otherwise specified, additional records and reports indicated in Sections C8 through C17 shall be submitted within five (5) working days after completion of work.

(4) Work Status

The Contractor shall respond to questions within one (1) hour of receipt from the COTR as to the status of any work.

2. RECURRING SERVICES

In addition to the above GENERAL performance standards, the following applies to all PM, PT&I, and PGM contract requirements.

a. Quality

Completeness. For every PM, PT&I, and PGM contract requirement, each activity listed on the related checklist must be completed.

b. Timeliness

Completion of PM, PT&I, and PGM. The contract requirements for all PM, PT&I, and PGM activities shall be satisfied by performing the activities itemized on the Maintenance Checklists contained in Attachments J-C8.2 through J-C17.2 at the frequencies specified and at the scheduled time in the CMMS. If for any reason (e.g., access problem, outage required, research schedule, etc.) the scheduled time cannot be accomplished, the Contractor shall document the reason why in the "Delay/Cancel" field of the CMMS and report to the COTR.

Frequencies

1. Triennial (T) - Services performed once during each 36-month period.
2. Biennial (B) - Service performed once during each 24-month period.

3. Annual (A) - Services performed once during each 12-month period.
4. Semiannual (SA) - Services performed twice during each 12-month period at intervals of 160 to 200 calendar days.
5. Quarterly (Q) - Services performed four times during each 12-month period at intervals of 80 to 100 calendar days.
6. Monthly (M) - Services performed 12 times during each 12-month period at intervals of 28 to 31 calendar days.
7. Semimonthly (SM) - Services performed 24 times during each 12-month period at intervals of 14 to 16 calendar days.
8. Weekly (W) - Services performed 52 times during each 12-month at intervals of six to eight calendar days.
9. Twice weekly (2W) - Services performed twice a week, such as Monday and Thursday or Tuesday and Friday.
10. Three times weekly (3W) - Services performed three times a week, such as Monday, Wednesday and Friday.
11. Daily (D5) - Services performed once each day, Monday through Friday, including holidays unless otherwise noted

3. TROUBLE CALLS

In addition to the GENERAL performance standards, the following apply to Trouble Call work.

a. Quality

- (1) Response to Emergency Trouble Calls. Eliminate potential life threatening or serious injury hazards and prevent/minimize loss or damage to Government property.
- (2) System Restoration. Full system restoration is not considered an integral part of the emergency call but restoring the system to the fullest possible condition once the emergency has been arrested shall be performed as part of the emergency call.

b. Timeliness

- (1) Response to Emergency Trouble Calls.
 - (a) The Contractor shall respond within fifteen (15) minutes following notification during regular working hours.
 - (b) During other than regular working hours, the Contractor shall contact the Government within ten (10) minutes following paging/beeping, and respond within two (2) hours following notification.

ten (10) working days advance notice to the COTR, and Building Manager.

(e) **Emergency and Operational Outages:** The Contractor shall immediately notify the COTR of emergency and unplanned operational outages.

(2) CMMS Reporting

The Contractor shall update information in the CMMS database on a daily basis so that the database accurately reflects the status of the work being performed.

(3) Additional Reporting

Unless otherwise specified, additional records and reports indicated in Sections C8 through C17 shall be submitted within five (5) working days after completion of work.

(4) Work Status

The Contractor shall respond to questions within one (1) hour of receipt from the COTR as to the status of any work.

2. **RECURRING SERVICES**

In addition to the above GENERAL performance standards, the following applies to all PM, PT&I, and PGM contract requirements.

a. Quality

Completeness. For every PM, PT&I, and PGM contract requirement, each activity listed on the related checklist must be completed.

b. Timeliness

Completion of PM, PT&I, and PGM. The contract requirements for all PM, PT&I, and PGM activities shall be satisfied by performing the activities itemized on the Maintenance Checklists contained in Attachments J-C8.2 through J-C17.2 at the frequencies specified and at the scheduled time in the CMMS. If for any reason (e.g., access problem, outage required, research schedule, etc.) the scheduled time cannot be accomplished, the Contractor shall document the reason why in the "Delay/Cancel" field of the CMMS and report to the COTR.

Frequencies

1. Triennial (T) - Services performed once during each 36-month period.
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11. Daily (D5) - Services performed once each day, Monday through Friday, including holidays unless otherwise noted

3. TROUBLE CALLS

In addition to the GENERAL performance standards, the following apply to Trouble Call work:

a. Quality

- (1) Response to Emergency Trouble Calls. Eliminate potential life threatening or serious injury hazards and prevent/minimize loss or damage to Government property.
- (2) System Restoration. Full system restoration is not considered an integral part of the emergency call but restoring the system to the fullest possible condition once the emergency has been arrested shall be performed as part of the emergency call.

b. Timeliness

- (1) Response to Emergency Trouble Calls.
 - (a) The Contractor shall respond within fifteen (15) minutes following notification during regular working hours.
 - (b) During other than regular working hours, the Contractor shall contact the Government within ten (10) minutes following paging/beeping, and respond within two (2) hours following notification.

- (2) Response to Urgent Trouble Calls. The Contractor shall either contact the customer or respond to Urgent TC within eight (8) hours following notification during regular working hours. All urgent TC shall be completed within five (5) working days following notification.
- (3) Response to Routine Trouble Calls. The Contractor shall complete routine calls within twenty (20) working days following notification.

c. Customer Satisfaction Survey

Upon completion of each Trouble Call, the Contractor shall complete the top portion of the Customer Survey Sheet and leave it with the customer. If the customer is not available, the contractor shall mail the sheet to the customer using the GRC interoffice mail. The Government will enter the results of the surveys into a database. Results will be shared with the Contractor. The Contractor shall investigate work identified on the Customer Satisfaction Survey as "unsatisfactory" or "poor" and correct work as required to meet the quality standards of the contract.

4. **MINOR SERVICE REQUESTS**

In addition to the above GENERAL performance standards, the following applies to Minor Service Request Work.

- a. Timeliness. The Contractor shall complete minor service request work within twenty workdays.
- b. Customer Satisfaction Survey
Upon completion of each minor service request, the Contractor shall complete the top portion of the Customer Survey Sheet and leave it with the customer. If the customer is not available the contractor shall mail the sheet to the customer using the GRC interoffice mail. The Government will enter the results of the surveys into a database. Results will be shared with the Contractor. The Contractor shall investigate work identified on the Customer Satisfaction Survey as "unsatisfactory" or "poor" and correct work as required to meet the quality standards of the contract.

5. **INDEFINITE QUANTITY WORK**

In addition to the above GENERAL performance standards, the following applies to Indefinite Quantity Work.

a. Timeliness

- (1) Completion of Indefinite Quantity Work. The Contractor shall complete IQ work within the time frame specified on the Delivery Order. If the Delivery Order does not specify a time frame, the Contractor shall complete IQ work within thirty (30) calendar days following receipt of the D.O.
- (2) IQ Proposal Preparation. Within ten (10) days, the Contractor shall prepare a detailed proposal to accomplish the work identified on the D.O. The proposal shall include labor hours and costs, material costs, and equipment costs required to complete work.

b. Customer Satisfaction Survey

Upon completion of each Indefinite Quantity Work Order, the Contractor shall complete the top portion of the Customer Survey Sheet and leave it with the customer. If the customer is not available the contractor shall mail the sheet to the customer using the GRC interoffice mail. The Government will enter the results of the surveys into a database. Results will be shared with the Contractor. The Contractor shall investigate work identified on the Customer Satisfaction Survey as "unsatisfactory" or "poor" and correct work as required meeting the quality standards of the contract.

6. UNIQUE TO SPECIFIC SYSTEMS

In several contract requirements, there are additional performance standards that apply only to the individual contract requirements. Where that is the case, those standards are defined, within the text of Sections C8 through C17.

RFPO3-C6F-01/NAS3-03003

SECTION C4

SECTION C4: RESERVED

CONTRACTOR FURNISHED ITEMS

C4-1

12/18/2002

SECTION C5: FIRM FIXED PRICE WORK

1. GENERAL

The Contractor shall perform all preventive maintenance (PM), predictive testing and inspections (PT&I), programmed maintenance (PGM), trouble calls (TC), minor service requests, and all other requirements listed in Section C8.4-C17.4 and CMMS documentation as described herein under the firm fixed price portion of the contract.

2. PREVENTIVE MAINTENANCE (PM), PREDICTIVE TESTING AND INSPECTION (PT&I), PROGRAMMED MAINTENANCE (PGM)

- a. General Requirement. The Contractor's minimum PM, PT&I and PGM work shall be required to be performed using the CMMS standards and frequencies specified. The Contractor shall generate and schedule the PM, PT&I, and PGM work order using the Government's CMMS. The CMMS associated PM, PT&I, and PGM Checklist Forms are in applicable sections of Attachments J-C8.2 through J-C17.2. The Contractor may, at his/her option and at no additional cost to the Government, increase the level and/or frequency of PM, PT&I, and PGM in an effort to minimize repair requirements.
- b. PM and PGM Requirements. PM and PGM consists primarily of inspection, testing, cleaning, lubrication, adjustment, calibration, and minor part and component replacement (e.g., filters, batteries) as required to verify proper system operation; minimize malfunction, breakdown, and deterioration of systems and equipment; and identify and/or perform any repairs required to bring the equipment up to operating standards. PM and PGM shall be performed at least as frequently and shall, at a minimum, include all of the applicable checkpoints and services indicated in the specific requirements clauses that follow.
- c. PT&I Requirement. PT&I consist primarily of the use of advanced technology to assess equipment, systems, and facility condition. The PT&I data obtained allows for planning and scheduling corrective maintenance or repairs in advance of failure (e.g., Eddy current testing, ultrasonic testing, infrared thermography, vibration and oil analyzers).

d. Documentation. The Contractor shall provide all PM, PT&I, and PGM documentation via the CMMS. For each PM, PT&I, and PGM task, the Contractor shall enter the following information into the CMMS:

- (1) "Equipment No.": equipment, structure, or system identification number of unit maintained. (If the equipment is not listed in CMMS, the Contractor shall submit a "CMMS Request for Modification Form" to the COTR and affix the equipment with an equipment number tag (bar code). For equipment that cannot be tagged, the COTR will assign an equipment number in the CMMS).
- (2) "Scheduled Start Date/Time": Date Contractor plans to start work.
- (3) "Date Completed": Date Contractor completed required work.
- (4) "Parts": Description, quantity, and total cost of materials.
- (5) "Regular Hours" and "Overtime Hours": Actual labor hours expended at the job site, excluding travel.
- (6) "Delay/Cancel Notes": Reason for delay or nonperformance (if applicable) of any portion of the work assigned.
- (7) "Equipment Condition Code": Current Equipment Condition Code.
- (8) "Comments": Abnormalities found during performance of work, observed operating conditions, deficiencies observed/corrected, and recommended changes to task procedures.

3. TROUBLE CALLS

a. Trouble Calls - Trouble Calls are requests generally called in by telephone to the Work Control Office by occupants of a facility, building managers or maintenance workers. Trouble Calls are unscheduled service calls of a one-time nature typically for repair, adjustment, or replacement as necessary to correct a malfunction of any existing equipment or facilities maintained or operated under this contract and which normally should be completed for less than \$2,000 in total costs (excluding profit) for labor, materials, and equipment. There are three categories of work as follows.

- (1) Emergency TC- Emergency TC are situations that require immediate action to eliminate hazards to personnel, equipment, or environment; to prevent loss of or damage to Government property; or to restore essential services that have been interrupted by an unplanned event.

- (2) Urgent TC- Urgent TC are situations which do not immediately endanger personnel or threaten to damage property or the environment, but would soon inconvenience and affect the health or well-being of personnel or disrupt operating conditions or research.
- (3) Routine TC- Routine TC are all other calls that do not qualify as Emergency or Urgent Trouble Calls.

b. Completion: - A Trouble Call is considered complete when the following conditions have been met:

- (1) Emergency Trouble Calls - The hazardous condition has been eliminated, either by repair, adjustment, replacement, or by isolation or shutdown of the portion of the system in which the hazardous condition existed and the "Customer" has been notified. If the initial response was isolation or shut down, subsequent and permanent correction of the problem shall also be performed, unless the cost of such correction and the cost of the initial response would exceed \$2,000 (in such case, a Delivery Order will be issued to perform the permanent correction).
- (2) Routine and Urgent Trouble Calls - The cause of the system malfunction has been positively diagnosed and permanently corrected.

c. Limitations

(1) Emergency Trouble Calls

- (a) There is no limitation of the Contractor's financial responsibility with regard to responding to Emergency Trouble Calls, other than that set forth in b(1) above.

(2) Urgent and Routine Trouble Calls

- (a) Once the Contractor has positively diagnosed the cause of the problem and it is clear that the permanent correction of the system malfunction would, when combined with the cost of its diagnosis, exceed \$2,000, the Contractor is not required to continue work under that Trouble Call. In this case, the Contractor shall notify the Government of the Contractor's diagnosis, recommended solution, and a preliminary cost proposal to correct the problem under Indefinite Quantity pricing.

- (b) If the Contractor has not positively diagnosed the cause before it has incurred more than \$2,000 in costs, continuation and completion of the diagnosis will be paid based on the hourly prices in Schedule B for actual hours worked after the Contractor has incurred \$2,000 in costs.
- (c) Where permanent correction would exceed \$2,000, but temporary correction would not, temporary correction shall be made. If only temporary correction is made, the Contractor shall so notify the Government along with a preliminary cost proposal for permanent correction under Indefinite Quantity pricing.

d. Limitation of Government's Liability.

- (1) If the Contractor does not notify the Government, and incurs costs in excess of \$2,000 to continue or complete the requirement, the Government is not obligated to place a Delivery Order and the Contractor may be liable for all cost incurred under the original Trouble Call.

e. Processing Trouble Calls

(1) Notification Procedures.

- (a) The Work Control Office will initiate Trouble Calls to the Contractor using the CMMS. The Government may, but is not required to, combine into a single trouble call all previously issued and outstanding trouble calls received for a single system in the same building or structure. For example, "leaking roof" and "damaged ceiling tile" in the same building or system would be one trouble call. During regular working hours, the Contractor shall continuously maintain a telephone watch for immediate notification of Emergency Trouble Calls. Contractor receipt of Routine and Urgent Trouble Calls via the CMMS shall constitute notification of routine and Urgent Trouble Calls.
- (b) During other than regular working hours, the COTR or dispatcher will notify the Contractor of emergency work by contacting the personnel listed in the Emergency and Snow Management Plan. The Contractor shall contact the

Work Control Office the next work day to initiate an Emergency Work Order in CMMS.

(2) Trouble Call Documentation:

The Contractor shall provide all trouble call documentation via the CMMS. For each TC, the Contractor shall enter the following information into the CMMS:

- (a) "Equipment No.": equipment, structure, or system identification number of unit repaired. (If the equipment is not listed in CMMS, the Contractor shall submit a "CMMS Request for Modification Form" to the COTR and affix the equipment with an equipment number tag (bar code). For equipment that cannot be tagged, the Government will assign an equipment number in the CMMS).
- (b) "Reason for Outage": Description of the cause of equipment, structure, or system failure.
- (c) "Scheduled Start Date/Time": Date and time Contractor arrives at the job site.
- (d) "Date Completed": Date Contractor completed required work.
- (e) "Parts": Description, quantity, and total cost of materials.
- (f) "Regular Hours" "Overtime Hours": Actual labor hours expended at the job site, excluding travel.
- (g) "Delay/Cancel Notes": Reason for delay or nonperformance (if applicable) of any portion of the work assigned.
- (h) "Equipment Condition Code": Current Equipment Condition Code
- (i) "Comments": Abnormalities found during performance of work, observed operating conditions, deficiencies observed/corrected, and recommended changes to task procedures.

(3) Incidental and Related Damage:

The Contractor shall repair any incidental and related damage as a result of the initial service being performed. For example, if the Trouble Call is to repair a roof leak, the Contractor shall replace any ceiling tiles or repair other related items damaged as a result of the leaking roof within the scope and limit of the particular Trouble Call.

4. MINOR SERVICE REQUESTS

Minor service requests are request generally called in by telephone to the Work Control Office by building occupants or building managers. These requests are of a one-time nature typically for facilities related work that is new and which normally should be completed for less than \$400 in total costs (excluding profit) for labor, materials, and equipment. The minor service requests will be coded in the CMMS as the following:

- SR/EI - service request for electrical isolation
- SR/PP - service request for new work
- SR/MI - service request for mechanical isolation
- SR/SP - service request for safety person
- SR/TS - service request for technical support
- REP/PP - repair work (within the limitations)
- RO/PP - replacement of obsolete (within the limitations)

a. Limitations

- (1) If the work can be completed for \$400 and less, the Contractor shall complete the work within 20 workdays.
- (2) If the work will exceed \$400 to complete, the Contractor shall notify the Government along with a cost proposal to complete the work under Indefinite Quantity pricing.

b. Limitation of Government's Liability

If the Contractor does not notify the Government, and incurs costs in excess of \$400 to continue or complete the work. The Government is not obligated to place a Delivery Order and the Contractor is liable for all cost incurred under the original minor service request.

c. Processing Minor Service Requests(1) Notification Procedures

The Work Control Office will initiate Minor Service Requests to the Contractor using the CMMS. Contractor receipt of Minor Service Requests via the CMMS shall constitute notification.

(2) Documentation

The Contractor shall document the performance of all minor service requests in the CMMS. For each minor service request, the Contractor shall enter the following information into the CMMS:

- (a) "Equipment No.": equipment, structure, or system identification number of unit. (If the equipment is not listed in CMMS, the Contractor shall submit a "CMMS Request for Modification Form" to the COTR and affix the equipment with an equipment number tag (bar code). For equipment that cannot be tagged, the Government will assign an equipment number in the CMMS)
- (b) "Scheduled Start Date/Time": Date and time Contractor arrives at the job site.
- (c) "Date Completed": Date Contractor completed required work.
- (d) "Parts": Description, quantity, and total cost of materials.
- (e) "Regular Hours" "Overtime Hours": Actual labor hours expended at the job site, excluding travel.
- (f) "Delay/Cancel Notes": Reason for delay or nonperformance (if applicable) of any portion of the work assigned.
- (g) "Comments": Abnormalities found during performance of work, observed operating conditions, and deficiencies observed/corrected.

5. OPERATIONS

- a. General: Operations includes work associated with the day-to-day operations of utility plant equipment, distribution systems, and equipment monitoring (including, but not limited to, boilers, chillers, EMCS, and field operations of electrical systems) identified throughout Section C8-C17.
- b. Operational Emergencies: Operational emergencies include ruptured mains (e.g. water, natural gas, steam, cooling tower water, chilled water, fire water), loss of feed water, fuel, power which reduce the boiler pressures to below the specified minimums for a period extending beyond 30 minutes, ruptured or severely leaking equipment, electrical power outages, and loss of critical equipment. The Contractor shall treat operational emergencies as emergency trouble calls as per C5.4.

SECTION C6: INDEFINITE QUANTITY WORK1. GENERAL

The Contractor shall perform replacement of obsolete items (ROI), repair (REP), Incidental Engineering, and service requests (SR) (except trouble calls and minor service requests), as described herein under the fixed-unit-price Indefinite Quantity portion of the contract.

a. Definitions

(1) Indefinite Quantity (IQ) work is, non-recurring specific repair, modification or alteration work, replacement of obsolete, or service requests, consisting of Fixed Price Tasks based on Craft Hour Unit Prices and negotiated scope, equipment and materials. The Government may order indefinite Quantity work as separate items or in combinations of items on an as-needed basis.

(2) Incidental Engineering. Incidental engineering is the performance of limited engineering analyses and activities on certain maintenance related tasks as indicated in this specification. Examples include evaluation and recommendations regarding equipment maintainability and operability; performing evaluations and making recommendations during troubleshooting and repair of specialized mechanical or electrical equipment; evaluation of mechanical or electrical systems for code compliance during certain repair activities; development or approval of complex scaffolding systems; and development and testing of specialized lifting devices and testing apparatus. Incidental engineering does not generally include professional design services such as those which would be performed by a professional Architectural and Engineering firm during the development of an engineered construction project.

b. Excluded Work. Maintenance and repair work associated with operations, maintenance (including all PM, PT&I, and PGM work), Minor service requests, and Trouble Calls are covered under the fixed price portion of this contract and will not be included in the indefinite quantity portion of the contract.

- c. Initiation. Either the Government or the Contractor may initiate the requirement for IQ work, but work shall not begin without an approval from the Government and a NASA Optional Form 347 - Order For Supplies or Services. All IQ work will be documented in the Government's CMMS. The need for IQ work may arise from Contractor inspections, routine trouble calls exceeding their limit, equipment breakdowns, system malfunctions or from other inspections and service requests from the COTR. The Delivery Order (D.O.) package, which includes a statement of work (SOW), and any attached sketches and additional specification sheets, will clearly identify the scope and location of desired work. During phase-in the Government will begin initiating IQ work so that estimating can be completed and work approved and ready to commence on the start date of the contract.
- d. Estimation and Planning Costs. Requests for cost estimates for IQ work do not obligate the Government to place a delivery order. The Contractor is not entitled to separate payment for developing such cost estimates. (The Contractor should allow for recovery of such costs under its Fixed-Price). Estimating ranges from developing and submitting preliminary cost estimates for budgeting purposes to extensive detailed cost estimates for large projects
- e. Work Performance. The Contractor shall complete IQ work as specified in the SOW and within the time frame specified on the D.O. unless modified by issuance of NASA Optional Form 347 - Order For Supplies or Services. If the D.O. does not specify a time frame, the Contractor shall complete IQ work within 30 calendar days following receipt of the D.O. Noncompliance with scheduled completion dates shall be subject to deductions per the "CONSEQUENCES OF CONTRACTOR'S FAILURE TO PERFORM REQUIRED SERVICES" clause, Section E.
- f. Documentation. Unless otherwise specified in the Delivery Order, the Contractor shall provide as-built drawings, operations/maintenance manuals, and equipment inventory sheets to the COTR for each D.O. The Contractor shall enter the following information into the CMMS:

- (1) "Equipment No.": equipment, structure, or system identification number of unit repaired. (If the equipment is not listed in CMMS, the Contractor shall submit a "CMMS Request for Modification Form" to the COTR and affix the equipment with an equipment number tag (bar code). For equipment that cannot be tagged, the Government will assign an equipment number in the CMMS).
- (2) "Reason for Outage": Description of the cause of equipment, structure, or system failure.
- (3) "Date Completed": Date Contractor completed required work.
- (4) "Parts": Description, quantity, and total cost of materials.
- (5) "Regular Hours" "Overtime Hours": Actual labor hours expended at the job site, excluding travel.
- (6) "Delay/Cancel Notes": Reason for delay or nonperformance (if applicable) of any portion of the work assigned.
- (7) "Equipment Condition Code": Current Equipment Condition Code

2. **NEGOTIATED FIXED-PRICE.** The Contractor will be paid a negotiated fixed-price for each delivery order for Indefinite Quantity Work as specified in the following procedures:

The Contractor shall prepare and furnish a cost estimate identifying proposed craft hours, materials (parts), subcontractor work, equipment, and delivery dates of material and duration of work. The Contractor shall use the Craft Hour Unit Prices bid in Section B. Upon approval by the Government, the Contractor's estimate becomes a firm fixed price for the D.O.

SECTION C7: MANAGEMENT AND ADMINISTRATIVE REQUIREMENT1. GENERAL MANAGEMENT REQUIREMENTS

The Contractor, as part of the firm fixed price, shall manage the total work effort associated with facilities operations, maintenance, repair, and all other services required herein to assure fully adequate and timely completion of services in a safe manner that achieves the contract objectives, outcomes, and requirements described herein. Included in this management function is a full range of duties not specifically included elsewhere in Section C. These include but are not limited to such areas as payroll, purchasing, personnel, planning, scheduling, incidental engineering, estimating, cost accounting, subcontract administration, safety, report preparation, establishing and maintaining management records, safety, and quality control.

a. Staffing. The Contractor shall provide an adequate staff of personnel with the necessary management expertise to assure the performance of the work in accordance with sound and efficient management practices.

b. Work Control. Work Control shall include receipt and performance of trouble calls, Minor service requests, recurring work identified in Section C:8 through C17 (including PM), and non-recurring work from the IQ portion. The Contractor shall implement all necessary work control procedures to fully ensure adequate and timely completion of work requirements, as well as to permit tracking of work in progress. The Contractor shall plan, estimate, and schedule all work to assure material, labor, and equipment are available, and safety and environmental concerns are met, to complete work requirements within the specified time limits and in conformance with the quality standards established herein. All work shall be entered daily into the CMMS.

c. Work Schedule. The Contractor shall schedule and arrange work so as to cause the least interference with the normal occurrence of Government business and mission. The Contractor shall schedule the specific performance dates for PM within the intervals specified in the CMMS. If the Contractor needs to change the specific performance

dates from the CMMS, the Contractor shall notify the COTR of those impending changes. In those cases where some interference may be essentially unavoidable, the Contractor shall make every effort to minimize the impact of the interference, inconvenience, equipment downtime, interrupted service, customer discomfort, etc. For any scheduled maintenance, if the Government cannot make equipment or facilities available to accommodate the Contractor's maintenance schedule, the Government will notify the Contractor at least 2 days in advance of the Contractor's scheduled date of work.

d. Records and Reports. The Contractor shall maintain management, operation, maintenance, and IQ work records using the Government's CMMS and prepare and submit all management reports, maintenance reports, and operating procedures specified herein. Daily, weekly, monthly and other recurring operating records, reports, logs and other documents are either specified as contract requirement submissions in Sections C8 through C17. All correspondence, records, reports, logs and other documents submitted by the Contractor to the Government shall be provided in electronic form and software compatible, unless otherwise specified. Acceptable formats are Microsoft Word, Microsoft Excel or formats readable by Microsoft Word or Microsoft Excel. All records and copies of reports shall be turned over to the Contracting Officer within 3 calendar days following contract completion.

e. Monthly Report. The Contractor shall submit a monthly metric report by the eighth day of each month covering work performed during the previous month. The report shall include the following information:

(1) Trouble Calls (TC)

(a) Performance: average completion time (workdays) and average response time (hours) for each category of trouble call. (Emergency, Urgent, Routine)

(b) Activity: count of trouble calls, by category, including:

- (1) Number of Open TC at start of month (backlog)
- (2) Number of New TC received during the month
- (3) Number completed during the month
- (4) Number of Open TC at end of month (backlog)
- (5) Number of TC on hold
- (6) Number of overdue TC

(2) Minor service requests (SR/PP)

- (a) Performance: average completion time (workdays)
 - (b) Activity: count of SR/PP, including:
 - (1) Number Open at start of month (backlog)
 - (2) Number of New received during the month
 - (3) Number completed during the month
 - (4) Number Open at end of month (backlog)
- (3) PM, PGM, & PT&I
- (a) Performance:
 - (1) Percent completed within specified intervals.
 - (b) Activity: count of tasks by category (PM, PGM, PT&I)
 - (1) Number Scheduled for the month
 - (2) Number completed for the month
 - (3) Number of tasks not completed and reason for non-performance:
 - (a) Access denied
 - (b) Outage/clearance denied
 - (c) Equipment not found
 - (d) Other (specify)
 - (4) Number open at the end of the month
 - (5) Number of PT&I finds as a percentage of Number of Devices Surveyed
- (4) IQ
- (a) Estimating:
 - (1) Average completion time of estimate (workdays)
 - (2) Number of tasks being estimated at start of month
 - (3) Number of new tasks received for estimating during the month
 - (4) Number of estimates completed during the month
 - (5) Number of overdue estimates
 - (6) Number of tasks being estimated at end of month
 - (b) Performance:
 - (1) Average completion time (workdays)
 - (2) Number of Tasks Completed on Schedule as a percentage of the Total Number of Tasks Scheduled
 - (c) Activity:
 - (1) Number of Open Tasks at Start of Month
 - (2) Number of New Tasks Released During the Month
 - (3) Number of Tasks Completed During the Month

(4) Number of Tasks Open at the End of the Month

(5) Status of Tasks not started

(5) Operations:

For systems operated, hours each Unit of Equipment is Available to Run at Capacity as a percentage of the total hours in the month.

f. Other Reports

Cost Projection: The Contractor shall list the IQ work that will be completed and invoiced during the upcoming month. This report shall be submitted with the monthly invoice.

2. COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

- a. The Government's CMMS currently is the DataStream MP2 6.0 (using an SQL server) product. Controlled access to the CMMS will be provided to the Contractor for the duration of the contract. The MP2 software will be made available to the Contractor. The Government reserves the right to change the CMMS or the server it runs on at any time during the contract. The Government assumes all costs incurred as a result of a change from one CMMS to another. Additionally, the CMMS software will be provided to and utilized by a number of other on-site service contractors. The Contractor shall follow all of the Policy Directives and Procedures and Guidelines as set by NPD 2810.
- b. Current minimum Standards for PM, PT&I, and PGM are documented in the CMMS, including requirements, and frequencies of work. The Government will provide CMMS administration for the CMMS software and operating systems. The Contractor shall use the CMMS application system to plan, track, and record all work identified throughout Section C8-C17.
- c. Employee ID Number. The Contractor shall submit to the Government's CMMS Administrator a unique employee ID number and a craft for each employee ID. This is a requirement of the CMMS software and will be input into the system by the Government.

- d. The Contractor shall update the Government's CMMS database daily to reflect all work performed. The database fields updated shall include all information specified in Sections C-5 and C-6.

3. GENERAL ADMINISTRATIVE REQUIREMENTS

- a. Directives, Instructions, Policies, and Regulation Requirements: The Contractor shall adhere to all applicable Government directives, instructions, policies, and regulations including the GRC Safety Manual and GRC Environmental Manual, in addition to current OSHA, NFPA, NEC, regulations and requirements for both State and Federal. Attachment J-C7.1, lists applicable NASA and other Federal Agency directives, instructions, policies, guidelines, and regulations.
- b. Permits. The Contractor shall, without additional cost to the Government, obtain all appointments, licenses and permits (Area Clearance, Hot Work, Confined Space, and Crane Permit) required for the prosecution of work. The Contractor shall comply with all applicable Federal, State, and Local laws. Evidence of such permits licenses shall be provided to the COTR before work commences.

SECTION C8: ENERGY MANAGEMENT CONTROL, LIFE SAFETY, and SECURITY SYSTEMS1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section shall include PM, PT&I, PGM, and ROI, operation, trouble calls, minor service requests, and repair of equipment and system components with their associated appurtenances, including, detectors, transducers, activators, nozzles, piping, storage tanks, pumps, valves, batteries, inverters, starters, controls, cameras, lighting, loop cabling, and wiring. All work shall comply with the applicable directives, manuals and instructions listed in attachments J-C1.1, Section J.
- b. Attachment J-C8.1 lists all of the Life Safety systems and equipment to be serviced under the contract, which include:
 - (1) Smoke Detection and Bldg. Evacuation Systems
 - (2) Energy Management Control (EMCS) and Apogee Life Safety (ALS3) Systems
 - (3) Combustible Gas Monitoring Systems
 - (4) Low Oxygen and Toxic Gas Sensors
 - (5) Emergency and Exit Lighting Systems
 - (6) Automatic Sprinkler and Standpipe Systems/Hose Cabinets
 - (7) CO2 Extinguishing Systems
 - (8) Hood Suppression Systems
 - (9) Aqueous Fire Fighting Foam (AFFF) System
 - (10) Fire Pumps
 - (11) Fire Hydrants
 - (12) Fire Extinguishers
 - (13) Emergency Generators and Transfer Switches
 - (14) Closed-Circuit Television (CCTV) Systems
 - (15) Access Control Systems
 - (16) Intrusion Detection Systems
 - (17) VESDA Laser PLUS Detector
 - (18) Energy Management Control System

2. DEFINITIONS

Refer to Section C2.

EMCS and ALS3. A computerized building automated equipment control and monitoring system that currently consist of Apogee software and peripheral

devices, manufactured by Siemens which operate on Microsoft Windows 2000 platform with PC computers used as terminals.

3. GOVERNMENT FURNISHED PROPERTY

Tiscor TaskMaster Fire and Safety
Apogee software for EMCS.

4. FIXED PRICE WORK

a. Recurring Services

The Contractor shall perform PM, PT&I, PGM and Operation on the systems and equipment listed in Attachment J-C8.1 in accordance with the contract requirements specified in this section, listed in Attachment J-C8.2, and the NFPA Code requirements. The following contract requirements shall be satisfied by performing the activities itemized on the related Maintenance Checklists contained in Attachment J-C8.2 at the frequencies specified therein.

(1) Contract Requirement No. C8-00a, EMCS and ALS3[®] Operation:

The Contractor shall maintain 100% operational status, system integrity, including network and database diagnostics; provide complete technical support; servers and client computers and back ups; data/visual display terminals, MLN and BLN networks, drivers and terminations; and other associated MLN and BLN software and hardware. The EMCS and ALS3[®] is fully integrated by Siemens Apogee[®] with Life Safety Option ALS3[®] on a UL listed fire alarm server. The Contractor shall keep software current, with release revisions/upgrades to main server computers and all clients that require modification or reprogramming as necessary. The Contractor shall maintain and operate the computerized building automated equipment control and monitoring system as a single system. All system software shall be fully synchronized quarterly and as required by major expansion to maintain clear system operator screen.

(a) EMCS- The Contractor shall maintain 100% operational status of the EMCS network system, including but not limited to, field panels (MBC, MEC), FLN Application Controllers (TEC, UC). The Contractor shall provide 24 hour / 7 day a week monitoring of critical and non-critical alarms. The Contractor shall have an operator on-site during the day shift, fully capable of making

any directed program changes and providing phone support for the field maintenance staffs. The Contractor shall maintain the EMCS system; and make control program changes due to changes in the building occupancy schedules and make temporary software adjustments and program changes to EMCS controlled systems for maintenance, construction, repair, and research and customer requirements, as requested and approved by the COTR.

- (b) ALS3®- The Contractor shall maintain 100% operational status, including but not limited to, repair of the ALS3® panels, software, computer, networks, network drivers, network terminations, and other associated hardware. The Contractor shall maintain system integrity, including but not limited to, database diagnostics, and provide complete technical support for the ALS3® system. The Contractor shall perform daily computer and printer inspections, correct any identified deficiencies, and record and report to the COTR immediately. The ALS3® system is considered a critical system to the Center for central station alarm response and dispatch of personnel. The devices connected to the ALS3® field panels are covered under other sections of this document for maintenance intervals.

(2) Contract Requirement No. C8-00b, EMCS/ALS3® Monthly Report:

The Contractor shall provide a monthly detailed list of all connected devices that are not at 100% operational status; operational availability of main steam plant and the chiller water plants equipment; run time data for critical equipment in the chilled water plants; EMCS/ALS3® Logbook; and EMCS/ALS3® abnormality report shall be provided as a part of the EMCS/ALS3® monthly reports due by the 10th of each month.

(3) Contract Requirement C8-00c, Monthly Kilowatt-hours Report:

The Contractor shall provide two copies of IMPAAC Kilowatt-hours Report to the COTR by the 10th of each month

(4) Contract Requirement C8-00d, EMCS/ALS3® Annual Report:

The Contractor shall provide the COTR the EMCS/ALS3® Annual Report by the end of the first month of each fiscal year (October 30). The report shall detail the number of points added during the previous year including type of points

(physical, virtual and total); total power consumption for the fiscal year; any new addition to the system and the comparison of energy saving of prior years.

- (5) Contract Requirement No. C8-00e, Life Safety Systems Operations;
The Contractor shall provide daily operation services during normal working hours directed by the Dispatcher which will include, taking systems in-and-out-of- service, and the resetting and re-calibration of life safety.
- (6) Contract Requirement No. C8-01a, Smoke Detection and Bldg. Evacuation Systems Semi-Annual PM.
- (7) Contract Requirement No. C8-01b, Smoke Detection and Bldg. Evacuation Systems Annual PM.
- (8) Contract Requirement No. C8-02, PSS System Semi-Annual PM.
- (9) Contract Requirement No. C8-03, Combustible Gas Monitoring Systems Semi-Annual PM.
- (10) Contract Requirement No. C8-04a, Low Oxygen and Toxic Gas Sensors Monthly PM.
- (11) Contract Requirement No. C8-04b, Low Oxygen and Toxic Gas Sensors Semi-Annual PM.
- (12) Contract Requirement No. C8-05, Emergency and Exit Lighting Systems Annual PM.
- (13) Contract Requirement No. C8-05a, Emergency and Exit Lighting Systems Annual Test PM.
- (14) Contract Requirement No. C8-06a, Automatic Sprinkler and Standpipe Systems Monthly PM.
- (15) Contract Requirement No. C8-06b, Automatic Sprinkler and Standpipe Systems Quarterly PM.
- (16) Contract Requirement No. C8-06c, Automatic Sprinkler and Standpipe Systems Triennial PGM.
- (17) Contract Requirement No. C8-06d, Automatic Sprinkler and Standpipe/Hose Cabinets Systems Five Year PGM.
- (18) Contract Requirement No. C8-07, CO2 Extinguishing Systems Annual PM.
- (19) Contract Requirement No. C8-08a, Hood Systems Semi-Annual PM.
- (20) Contract Requirement No. C8-08b, Hood Systems Annual PM.
- (21) Contract Requirement No. C8-10a, AFFF System Quarterly PM.
- (22) Contract Requirement No. C8-10b, AFFF System Annual PM.
- (23) Contract Requirement No. C8-11a, Fire Pumps Weekly PM.
- (24) Contract Requirement No. C8-11b, Fire Pumps Annual PM.

- (25) Contract Requirement No. C8-12a, Fire Hydrants Annual PM.
- (26) Contract Requirement No. C8-12b, Fire Hydrants Biennial PGM.
- (27) Contract Requirement No. C8-13a, Fire Extinguishers Monthly PM.
- (28) Contract Requirement No. C8-13b, Fire Extinguishers Annual PM.
- (29) Contract Requirement No. C8-13c, Fire Extinguishers Five Year PGM.
- (30) Contract Requirement No. C8-13d, Fire Extinguishers Six Year PGM.
- (31) Contract Requirement No. C8-13e, Fire Extinguishers Twelve Year PGM.
- (32) Contract Requirement No. C8-14a, Emergency Generators Weekly PM.
- (33) Contract Requirement No. C8-14b, Emergency Generators Monthly PM.
- (34) Contract Requirement No. C8-14c, Emergency Generators Annual PM.
- (35) Contract Requirement No. C8-15, Access Control Systems Semi-Annual PM.
- (36) Contract Requirement No. C8-16, Intrusion Detection System Semi-Annual PM.
- (37) Contract Requirement No. C8-17, Closed Circuit Television Semi-Annual PM
- (38) Contract Requirement No. C8-18a, VESDA Laser PLUS Detector Annual PM
- (39) Contract Requirement C8-19, Energy Management Control System Annual PM.
- (40) Contract Requirement No. C8-20, IMPACC Panel Annual PM

b. "Trouble Call" Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition. The Contractor shall treat all alarms in EMCS as a trouble call (refer to section C5-4). There are two types of alarms in the EMCS system; critical alarms (noted as "XXX" in the EMCS system) shall be treated as an Emergency Trouble Call. Normal alarms shall be treated as a routine trouble call.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with Section C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with Section C6.

6. RECORDS AND REPORTS

Contract Requirement No. C8-99, Maintenance and Production of Life Safety System Records and Reports

Additional records and reports shall be updated after completion of the work by the Contractor and maintained in a history file throughout the term of the contract (see "Records and Reports" paragraph of the "MANAGEMENT" clause). Records and reports include:

- a. Electric Fire Pump Inspection Checklist
- b. Water Flow Test Computation Record
- c. Sprinkler Report
- d. Low Pressure CO₂ System Installation Record
- e. Fire Extinguisher Report (from Tiscor)
- f. Smoke Detection Report (from Tiscor)
- g. Combustible Gas Report (from Tiscor)
- h. Security System Certification Form

7. DETAILED SPECIFICATIONS

- a. All new Exit Signs shall be a self-luminous type.
- b. Any Emergency Lights that no longer function properly shall be replaced with "Emerg-lite" JSM18-2 units or approved equal.
- c. The Contractor shall provide technicians who are certified by the State of Ohio Commerce Department, Division of Fire Marshall to work on systems listed in this section.
- d. The maintenance and testing of CO₂ systems shall be scheduled through the Building Manager and Facility Manager. (These tests shall be conducted off regular work hours to ensure life safety).
- e. The Contractor shall provide technicians who have security clearance.

SECTION C9: ELECTRICAL DISTRIBUTION SYSTEMS

1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section shall include PM, PT&I, PGM, operation, switching, safety person, relay setting, trouble calls, minor service requests, and repair of equipment and system components with their associated appurtenances, including, motors, generators, transformers, switchgear, batteries, inverters, lighting, wiring panels and junction boxes, pull boxes, raceways, cables and other conductors. All work shall comply with the applicable directives, manuals and instructions listed in Attachments J-C1.1, Section J.
- b. Attachment J-C9.1 lists all of the Electrical Distribution systems and equipment to be serviced under the contract, which include:
- (1) Low Voltage:
 - (a) Circuit Breakers (Draw-out and Molded Case)
 - (b) Grounding Systems
 - (c) Power Distribution Panels
 - (d) Motors
 - (e) Cathodic Protection
 - (f) Portable Generators
 - (g) Uninterruptible Power Supplies (UPS)
 - (h) Auto Transfer Switches
 - (i) Lighting
 - (2) High Voltage:
 - (a) Transformers
 - (b) Circuit Breakers
 - (c) Switches
 - (d) Batteries & Chargers
 - (e) Capacitors
 - (f) Protective Relays
 - (g) Sectionalizing Boxes
 - (h) Power Distribution System
 - (i) Substations
 - (j) Manholes
 - (k) Misc. HV Equipment

2. DEFINITIONS

Refer to Section C2.

3. GOVERNMENT FURNISHED PROPERTY

No section specific GFP.

4. FIXED PRICE WORK

a. Recurring Services

The Contractor shall perform PM, PT&I, PGM, and operation on the systems and equipment listed in Attachment J-C9.1 in accordance with the contract requirements specified in this section and listed in Attachment J-C9.2. The following contract requirements shall be satisfied by performing the activities itemized on the related Maintenance Checklists contained in Attachment J-C9.2 at the frequencies specified therein. The Contractor shall provide electric isolation, switching operation, and safety person support as required to perform PM, PT&I, and PGM task.

- (1) Contract Requirement No. C9-00c, HV Substation Nitrogen Systems. The Contractor shall check the operation of the Substation Nitrogen Systems twice per week (Monday and Friday), to ensure proper pressures and maintain sufficient nitrogen on hand to change bottles as needed.
- (2) Contract Requirement No. C9-01, Low Voltage Circuit Breaker Triennial PGM.
- (3) Contract Requirement No. C9-02, Grounding Systems (Fuel Areas) Semi-Annual PM.
- (4) Contract Requirement No. C9-03, Grounding Systems Five Year PGM.
- (5) Contract Requirement No. C9-04a, Low Voltage Distribution System Thermography 5 year PT&I.
- (6) Contract Requirement No. C9-04b, Low Voltage Distribution System Five Year PGM.
- (7) Contract Requirement No. C9-05, Motor Annual PM.
- (8) Contract Requirement No. C9-06, Cathodic Protection Annual PM.
- (9) Contract Requirement No. C9-7a, Portable Generator Monthly PM.
- (10) Contract Requirement No. C9-7b, Portable Generator Annual PM.
- (11) Contract Requirement No. C9-8a, UPS/Battery Quarterly PM.

- (12) Contract Requirement No. C9-8b, UPS/Battery Annual PM.
- (13) Contract Requirement No. C9-8c, UPS/Battery Thermography Annual PT&I.
- (14) Contract Requirement No. C9-9a, Auto-transfer Switch Annual PM.
- (15) Contract Requirement No. C9-11a, HV Substation Transformer Annual PM.
- (16) Contract Requirement No. C9-11a (1), HV Dry Transformer Biennial PGM.
- (17) Contract Requirement No. C9-11a (2), HV Unit-Sub/Bldg 2.4 Kv Oiled Filled Transformer Annual PT&I.
- (18) Contract Requirement No. C9-11b (1), HV Substation Transformer Triennial PT&I.
- (19) Contract Requirement No. C9-11b (2), HV Dry Transformer 4 Year PT&I.
- (20) Contract Requirement No. C9-12a, HV Oil/SF6 Circuit Breaker Annual PM.
- (21) Contract Requirement No. C9-12b, HV Oil Circuit Breaker Triennial PGM.
- (22) Contract Requirement No. C9-13a, HV Air/Vacuum Circuit Breaker Biennial PGM.
- (23) Contract Requirement No. C9-13b, HV Air/Vacuum Circuit Breaker 4 Year PGM.
- (24) Contract Requirement No. C9-14a, HV Substation 138Kv Disconnect Switch Annual PT&I.
- (25) Contract Requirement No. C9-14b, HV Substation 34.5 Kv Disconnect Switch Annual PT&I.
- (26) Contract Requirement No. C9-14c, HV Substation 138Kv Disconnect Switch Triennial PGM.
- (27) Contract Requirement No. C9-14d, HV Substation 34.5 Kv Disconnect Switch Triennial PGM.
- (28) Contract Requirement No. C9-14e, HV Substation 2.4Kv Disconnect Switch Triennial PGM.
- (29) Contract Requirement No. C9-15a, HV Substation Battery Monthly PM.
- (30) Contract Requirement No. C9-15b, HV Substation Battery Quarterly PM.
- (31) Contract Requirement No. C9-15c, HV Substation Battery and Charger Annual PM.
- (32) Contract Requirement No. C9-15d, HV Substation Battery Annual PT&I.

- (33) Contract Requirement No. C9-16a, HV Capacitor Annual PT&I.
- (34) Contract Requirement No. C9-16b, HV Capacitor Biennial PGM.
- (35) Contract Requirement No. C9-17a, HV System Protective Relays Triennial PGM.
- (36) Contract Requirement No. C9-17b, HV System Protective Relays Building Triennial PGM.
- (37) Contract Requirement No. C9-18, HV Sectionalizing Box Annual PM.
- (38) Contract Requirement No. C9-19, HV Current Limiting Reactor Annual PM.
- (39) Contract Requirement No. C9-20a, HV Substation Quarterly PM.
- (40) Contract Requirement No. C9-20b, HV Substation Annual PT&I.
- (41) Contract Requirement No. C9-21, HV System Manholes Annual PT&I.
- (42) Contract Requirement No. C9-22, HV Voltage Regulator Annual PM.
- (43) Contract Requirement No. C9-23a, HV Load Tap Changers Annual PM.
- (44) Contract Requirement No. C9-23b, HV Load Tap Changers Triennial PGM.
- (45) Contract Requirement No. C9-24, HV Arrestors/Insulators 5 Year PGM.
- (46) Contract Requirement No. C9-25, HV Grounding XFMRs/Resistors Annual PM.
- (47) Contract Requirement No. C9-26a, Variable Drive Annual PT&I
- (48) Contract Requirement No. C9-26b, Variable Drive Annual PM

b. "Trouble Call" Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with Section C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with Section C6.

6. RECORDS AND REPORTS

Contract Requirement No. C9-99, Maintenance and Production of Electrical Distribution System Records and Reports

Additional records and reports shall be updated after completion of the work by the Contractor and maintained in a history file throughout the term of the contract (see "Records and Reports" paragraph of the "MANAGEMENT" clause). Additional records and reports include:

- a. Insulation Resistance Test Record
- b. Electrical Maintenance Power Distribution Panel Check Sheet
- c. Detailed Inspection Report
- d. FERRUPS Scheduled Maintenance Checklist
- e. Battery Maintenance for Pilot Cell
- f. Yearly Automatic Transfer Switch Test
- g. Monthly Portable Generator Test
- h. Thermal Scan Files List
- i. Ground Integrity test
- j. UPS Manufacture Procedure Sheet
- k. Cathodic testing

7. DETAILED SPECIFICATIONS

Listed below are components that are to be replaced with manufacturer's specific parts:

- a. Westinghouse Retrofit Solid State Digitrip Overload Protection for Draw-Out Circuit Breakers.
- b. Westinghouse IQ Data Plus II for Low Voltage Metering (Operating Instruction 003-LVEPDS-OI-003).
- c. Occupancy Sensors use those specified in Operating Instruction LVEPS-OI-006.
- d. Fluorescent Ballast Replacement shall use those specified in Operating Instruction LVEPS-OI-006.
- e. Low Voltage Lighting Panels shall use Square D Type panels with bolt-on style circuit breakers or equal.
- f. Low Voltage Distribution Systems shall be Square D I Line with bolt-on style circuit breakers or equal.
- g. 480 Volt Welding outlets use Hubbellock receptacle and interlocking disconnect switch (cat. no. HU362W H - NEMA 1 or HU362AW H - NEMA 12 or equal.
- h. The High Voltage PM work will required switching orders from the Electrical Dispatcher.
- i. The following procedures are to be used in addition to local codes:
 - (1) Naming of Low Voltage Distribution System shall use the procedure spelled out in Operating Instruction LVEPDS-OI-001.

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SECTION C9

- (2) Conduit installations shall be installed in accordance with Operating Instruction LVEPDS-OI-04.
- (3) All High Voltage work shall be accomplished in accordance with the high voltage electrical power system operating instructions (HVEPS-OIS).

SECTION C10: COMMUNICATION SYSTEMS1. **GENERAL REQUIREMENTS**

a. General Intention. The work under this section shall include trouble calls, minor service requests, and repair of equipment and system components with their associated appurtenances, including, computers, tuners, amplifiers, speakers, routers, gateways, batteries, inverters, lighting, wiring panels and junction boxes, conduit, cabling and wiring. All work shall comply with the applicable directives, manuals and instructions listed in attachments J-C1.1, Section J.

b. Attachment J-C10.1 lists all of the Communication systems and equipment to be serviced under the contract, which include:

- (1) Paging Systems
- (2) Intercom Systems

2. **DEFINITIONS**

Refer to Section C2.

3. **GOVERNMENT FURNISHED PROPERTY**

No section specific GFP.

4. **FIXED PRICE WORK**a. Recurring Services

There are no scheduled recurring (PM) requirements.

b. "Trouble Call" Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. **INDEFINITE QUANTITY WORK**

Indefinite quantity work shall be ordered in accordance with Section C6.

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SECTION C10

6. RECORDS AND REPORTS

None.

7. DETAILED SPECIFICATIONS

None

SECTION C11: PERSONNEL AND MATERIAL HANDLING SYSTEMS

1. GENERAL REQUIREMENTS

a. General Intention. The work under this section shall include PT&I, ROI, trouble calls, minor service requests, and repair of equipment and system components including, cabs, flights, overhead doors, gates, chains, cables, motors, gearboxes, brakes, lighting, cabinets, relays, amplifiers, switches, conduit, and wiring. All work shall comply with the applicable directives, manuals and instructions listed in attachments J-C11.1, Section J.

b. Attachment J-C11.1 lists all of the Personnel and Material Handling systems and equipment to be serviced under the contract, which include:

- (1) Elevators
- (2) Cranes
- (3) Hoists
- (4) Overhead Doors
- (5) Slings
- (6) Rescue Lines

c. Inspections, Testing, and Certification. The Contractor shall provide inspection and testing services as required to support routine and periodic certification requirements of elevators, cranes, slings, and hoists. All inspection and testing shall be performed in accordance with ASME/ANSI 17.1 and 17.2, OSHA, and NASA Lifting devices except as modified herein. All personnel operating lifting equipment shall receive formal training and a physical examination to be certified to operate such equipment.

2. DEFINITIONS

Refer to Section C2.

3. GOVERNMENT FURNISHED PROPERTY AND SERVICES

No section specific GFP.

4. FIXED PRICE WORK

a. Recurring Services

The Contractor shall perform PM, PT&I and PGM on the systems and equipment listed in Attachment J-C11.1 in accordance with the contract requirements specified in this section and listed in Attachment J-C11.2. The following contract requirements shall be satisfied by performing the activities itemized on the related Maintenance Checklists contained in Attachment J-C11-2 at the frequencies specified therein.

- (1) Contract Requirement No. C11-00, Elevator Fire Service Check Monthly PM
- (2) Contract Requirement No. C11-01a, Elevator Monthly PM
- (3) Contract Requirement No. C11-01b, Elevator Quarterly PM.
- (4) Contract Requirement No. C11-01c, Elevator Load Test and No-Load Test Annual PM.
- (5) Contract Requirement No. C11-01d, Elevator Full Load Test 5 Year PGM.
- (6) Contract Requirement No. C11-02b, Crane Annual PM.
- (7) Contract Requirement No. C11-02c, Crane Load Test 4 Year PGM.
- (8) Contract Requirement No. C11-03, Hoists Annual PM.
- (9) Contract Requirement No. C11-04, Overhead Doors Annual PM.
- (10) Contract Requirement No. C11-05, Slings 4 years PGM. The user of the sling will notify Contractor when an individual sling requires 4 year PGM.
- (11) Contract Requirement No. C11-06, Rescue Lines Annual PM.

b. "Trouble Call" Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with Section C6.

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SECTION C11

6. RECORDS AND REPORTS

None.

7. DETAILED SPECIFICATIONS

None.

SECTION C12: GROUNDS AND SURFACED AREAS1. **GENERAL REQUIREMENTS**

a. **General Intention.** The work under this section shall include REP, ROI, trouble calls, minor service requests, crack sealing; cutout of pavement for utility repairs; excavation and shoring for utility repairs; temporary and permanent patching of sections of bituminous (flexible) and concrete (rigid) pavements; pavement marking; maintenance of interior and exterior signs and barricades; maintenance of guardrails; and maintenance of fencing and associated gates, and grounds maintenance, and internal and external pest control services. The Contractor shall provide repairs to surfaced areas damaged from excavation as a result of making underground utility repairs under this contract. All work shall comply with the applicable directives, manuals and instructions listed in attachments J-C1.1, Section J.

b. Attachment J-C12.1 lists all of the Surfaced Areas Maintenance and Repair systems to be serviced under the contract, which include:

- (1) Roadways
- (2) Parking Lots
- (3) Sidewalks
- (4) Fences
- (5) Traffic Signs and Signal Lights
- (6) Motorized Gates
- (7) Ground Maintenance
- (8) Internal and external pest control services

2. **DEFINITIONS**

Refer to Section C2.

3. **GOVERNMENT FURNISHED PROPERTY**

Refer to Attachment J-

The Government will furnish the fuel and service maintenance for the above equipment and fuel for the mowers. The Government reserves the right to replace any vehicle or equipment that the Government owns. The Contractor shall maintain and repair equipment as required.

4. FIXED PRICE WORK

The Contractor shall be responsible for routine grounds maintenance that includes; grass cutting; maintenance of ornamental areas; collection and removal of leaves; trash and debris from grounds, window wells, roads and ditches; maintenance of earthen mounds; tree, hedges, and shrub trimming and pruning; animal control, and pest control; maintenance of baseball, soccer fields; and the jogging track. The Contractor is also responsible for snow and ice removal, maintaining the grounds of the Day Care Center; weekly sweep of grounds; maintenance of signs (street, traffic, etc.) maintenance of perimeter fence line and gates; maintenance of roadway and parking lots; and the trucking of excess snow to west area. The maps contained in Attachment C display the grounds to be maintained in this contract.

a. Contract Requirement C12-01 Routine Grounds Maintenance

Routine grounds maintenance shall be performed according to the requirements listed below and as specified on the grounds maintenance maps contained in Attachment J-C12.2. These maps identify the snow/lawn areas to be maintained (1-GM through 4-GM), the locations of the work described in requirements below and their respective priority. The quantities of grounds areas and items to be maintained are summarized in Attachment J-C12.3, "Grounds Inventory."

The grass areas are identified as Type1, Type2 and Type3. Routine fixed-price service is required for these areas. Type 1 grass has the same requirements as Type 2 grass and Type 3 grass has the same requirements as Type 1 and Type 2 but with one exception of edging is not required. The Contractor shall provide services according to the requirements, quality standards, and schedule listed below.

(1) Maintain Type I Grass Area

The Contractor shall maintain Type I grass areas to acceptable Industry Standards. Attachment C provides information on the location and geographic boundaries of the land parcels, which make up the area and a summary of the type of vegetation, which they contain.

Grass Cutting. All grass areas located within this maintenance level shall be maintained according to Industry Standards. Grass areas close or adjacent to buildings, hydrants, parking lots, manholes, fences, trees, hedges, and shrubs are included in mowing requirements. If any bare ground within the limits of a lawn area becomes vegetated with grass, weeds, or other similar growths through natural spread, i.e., not artificially planted, it shall be maintained. Grass cutting is to be accomplished free of scalping, rutting, bruising, and uneven and rough cutting and produce a neat, clean, even cut. After cutting, grass shall have a uniform height. Grass clippings shall be uniformly distributed over the mowed area, and shall not be windrowed or allowed to be deposited in piles or clumps. Grass clippings/trimmings shall be removed from sidewalks and other paved areas the same day the grass is cut and disposed of the day as collected.

Trimming. Maintain around trees, shrubs, flower/shrub beds, cultivated areas, poles, walls, valves, and other similar objects shall be accomplished to match the height and appearance of the surrounding mowed grass. Trimming operations shall not damage trees and shrubs. Trimming with herbicide treatment shall be confined to an area extending a maximum 12 inches from the object being trimmed. Grassed areas, trees, or shrubs killed or damaged as a result of the Contractor's work shall be repaired or replaced by the Contractor at no cost to the Government. Trimming operations shall be considered a part of grass cutting and shall be accomplished concurrently with grass cutting operations. Grass cutting shall not be considered complete until all trimming operations are accomplished.

Weeds and undesirable plant growth shall be eradicated from foundation plantings, ornamental islands, along perimeter fence lines, graveled electrical substations, storage areas and graveled perimeters and drives. The Contractor shall coordinate access to restricted and HAZARD areas with the COTR. Prohibited species shall not be disturbed according to the Endangered Species Management Plan, Attachment J.

Edging, All sidewalks, driveways, street edges, curbs, and other paved areas located within this maintenance level shall be edged. Edged lines shall be neat and clean, and shall be free of scalping, rutting, bruising, and uneven and rough cutting. All edging shall be performed by mechanical (non-herbicidal) means, except where driveway and street pavement edges are not discernible due to grass encroachment. In these cases a straight and even line approximating the pavement edge shall be established and maintained by mechanical means. Herbicides shall not be used to eliminate or reduce normal mechanical edging along discernible straight paved edges such as sidewalks and/ curbs. In conjunction with edging, all vegetation shall be removed from expansion joints and cracks, and that has encroached onto the paved areas in all paved surfaces in the parcel. Herbicides can be used to reduce the amount of mechanical work that may otherwise be necessary. Debris generated by edging operations that falls or is thrown on sidewalks, curbs, gutters, or streets or is thrown on nearby grass shall be removed from the site and the same day the edging is accomplished and disposed of the same day as collected.

(2) Maintain Type 2 Grass Areas

The Contractor shall maintain Type 2 grass areas as specified in Type 1 grass areas above be in accordance with Industry Standards.

(3) Maintain Type 3 Grass Areas

The Contractor shall maintain Type 3 grass areas as specified in Type 1 grass areas above, with the exception of edging which will be IQ if needed, be in accordance with Industry Standards.

(4) Maintain Ornamental Areas

The Contractor shall inspect and police ornamental areas. Areas shall be maintained free of weeds and unwanted grasses. Stone, mulch, and gravel shall be raked to a uniform pattern. Ornamental plantings shall be trimmed if necessary, to a uniform shape.

- (5) Collect and Remove Leaves, Trash, and Debris from Grounds, Roads and Window Wells
Grass Cutting. Prior to cutting grass, any trash, paper, or other debris that would detract from the finished appearance of the cut or present a safety hazard shall be removed. Such debris includes but is not limited to paper, cans, bottles, limbs, pine cones, rocks, and other such objects within the maintenance area, and shall include trash, paper, dead leaves, and other debris lodged in shrubs, hedges, fences, and along foundation and other walls. Debris shall be disposed of the same day as collected.
Leaf Removal. The Contractor shall remove fallen leaves seasonally and as needed to maintain clear lawn areas, flower beds, and window wells. During leaf removal operations, the Contractor shall collect and dispose of all trash and debris. The Contractor shall collect and remove all leaves on grass, in and around shrubs and bushes, along surfaced areas, and next to buildings and structures. The Contractor is required to remove and dispose of leaves, trash, and debris on the same day as collected.
- (6) Remove Debris from Open Ditches Culverts and Storm Catch Basins
The Contractor shall inspect and clean debris from open ditches, culverts and storm catch basins. Special inspection and cleaning shall be conducted following severe storms to ensure proper drainage and prevent flooding.
- (7) Earthen Mounds
The Contractor shall maintain plant growth on earthen mounds, as shown in Attachment J, Maps I -GM through 4-GM. Mounds covered with grass shall be mowed in accordance with Industry Standards. Mounds covered with miscellaneous plant growth shall be maintained with a trimmer. Weeds and grasses shall be eradicated around cable and piping trap that run through, around or over earthen mounds. Area number 22 on the map is not to be maintained. Maintain the exposure of the mound facing Building 204.
- (8) Trim and Prune Ornamental and Shade Trees

The Contractor shall maintain ornamental and shade trees, as shown in attachment J.

Tree Inspection. The Contractor shall inspect for dead, damaged, and diseased trees within the improved, semi-improved, and unimproved grounds area during the period of April through October. The Contractor shall submit to the COTR, within five work days of the inspection, an inspection report identifying any dead, damaged, or diseased trees and recommend action to be taken.

Tree Pruning. Trees shall be pruned in accordance with the following guidelines to selectively remove unwanted growth and encourage trees to grow or respond in a desired manner. All tree pruning shall be accomplished by or under the supervision of a person who's trained, experienced, and otherwise qualified in proper tree pruning techniques. Verification of such training, experience, and qualifications shall be acceptable to the COTR prior to initiation of any tree pruning. Trees shall be pruned according to their natural growth habit to evenly form and balance the tree, to promote proper health and growth, to respond to damage inflicted by natural or human causes, and to prevent interference with pedestrian and vehicular traffic. All clippings and debris shall be removed and disposed of the same working day. Pruning shall be accomplished in a manner so as to:

- (a) Remove dead, damaged, or diseased wood; or structurally weak limbs that may cause a safety hazard or unsightly appearance, including the removal of dead palm fronds.
- (b) Remove branches that extend over buildings and endanger roofs, eaves, and windows; or hang within 8 feet vertically of sidewalks, parking lots, and driveways.
- (c) Provide clearance for buses, moving vans, and similar vehicles along streets.
- (d) Cut back branches that overhang or grow into power lines. Anticipate the effects of wind on branches, which might fall on power lines and cut back accordingly. Shape the entire tree rather than notch the top.
- (e) Remove growth of small trees in front of windows, over entranceways or walks, and those that will obstruct vision at street intersections.

- (f) Remove sprouts, which grow from the trunk. Remove sprouts to the height of the first major lateral limb.
- (g) Branch stubs shall not be allowed. All branches shall be pruned (removed) back to the next major limb or the tree trunk. Pruning cuts shall be performed in a manner, which leaves the branch collar exposed (with no stub beyond the branch collar).

(9) Trim Evergreen Trees, Shrubs, and Hedges

The Contractor shall trim all damaged, unsightly or intrusive shrubs and hedges and remove all debris. Shrub or hedge limbs that rub against buildings or structures (including fences), extend over surfaced areas, or interfere with vehicular lines of sight shall also be trimmed or removed. Attachment J provide the identification of evergreen trees, shrubs and hedges.

Shrubs. The Contractor shall trim and prune all shrubs and bushes, within the improved areas, to remove dead, injured, abnormal or otherwise undesirable growth and to reduce size if shrub or bush is causing interference with a structure or pedestrian or vehicular traffic. The Contractor shall establish and maintain the natural form of the shrubs and bushes by removing old and injured canes and allowing development of young and vigorous shoots. Evergreen shrubs shall be pruned between the beginning of May and the end of October. Summer flowering shrubs shall be pruned after flowering is complete and before the end of July.

Hedges. Hedges shall be trim to maintain their existing shapes; no informal hedges shall be converted to formal shapes. The Contractor shall maintain hedges free of all dead or broken limbs. All clippings, branches and debris resulting from hedge trimming and pruning shall be removed the same day work is accomplished. Hedge trimming shall be performed between the beginning of May and the end of October.

(10) Animal Control

The Contractor shall provide services to set humane traps for the capture, and removal of small nuisance animals such as raccoons, opossum, woodchucks, ground hogs, squirrel, and birds. Captured animals and birds shall be safely removed and released following all regulations. If the Contractor is required to remove an injured, diseased or dead deer, the

removal shall be coordinated with the City of Brook Park or the City of Fairview Park. The Contractor shall set rodent traps as instructed by the COTR. These traps shall be checked daily. Trapped rodents shall be removed from the Glenn Research Center that same day.

(11) Maintain Soccer Field

The Contractor shall maintain the soccer field in accordance with Type 2 Grass. The field shall be maintained from the beginning of May, through the end of September.

(12) Maintain Baseball Fields

The Contractor shall maintain the two baseball fields. Foul lines and out of bound markers, shall be maintained. Infield shall be dressed following rainy periods or when compacted. Weeds and grasses shall be eradicated along outfield fence lines. Outfield grass shall be maintained according to Type 2, Grass Area. Infields shall be supplied with soil as required and raked. Following inclement weather, the infields shall be raked. The fields shall be maintained from the beginning of May through, the end of September.

(13) Maintain Jogging Track

The jogging track shall be raked and rolled to maintain a safe jogging environment. Weeds and grasses shall be removed from track surfaces. Ruts and holes shall be filled to maintain even surface.

(14) Emergency and Snow Management Plan.

The Contractor shall develop and implement an Emergency and Snow Management Plan (ESMP). The plan shall detail the procedures, standards and schedule used to respond to ice and snow removal, activities that occur during other than GRC regular working hours. The plan shall address all of the affected surfaced areas and their relative priorities as specified on the maps in Attachment Jxx. The Plan shall include contact names, responsibilities and phone numbers for contract personnel authorized to respond to off hour emergency and snow removal work. The Contractor shall submit an ESMP for approval 30 days prior to beginning work. The contractor shall ensure

that contact names, responsibilities, and phone numbers are up to date and accurate at all times. The contractor shall review and update the plan each year.

(15) Snow and Ice Removal

During normal work hours, the Contractor shall remove snow and ice to maintain safe access to facilities by the means of plowing, shoveling and/or abrasive melting agent. Areas include, but are not limited to, all roads and streets, taxi runway, parking areas, walkways, building entrances/exits (including steps, handicapped ramps and landings leading to all building doors), storm water runoff and remove snow that are blocking refuse containers. Also the Contractor shall provide clear access to fire hydrants. Locations and quantities of roads, parking areas, and walkways are specified in Attachment J, maps I-SRP through 3-SRP. If desired, the Contractor can provide and install snow fencing to minimize plowing due to drifting snow in areas identified on the map labeled Attachment J.

(16) Truck Excess Snow to West Area of Glenn

In the event of a large quantity of snow pile built-up, the Contractor shall move excess snow from roadways and parking lots, by loaded into trucks or trailers and transported to the Glenn West Area parking area. The dump area for excess snow is defined in Map 3-SRP, Attachment J.

(17) Maintain Perimeter Grounds Day Care Center

The Contractor shall maintain the perimeter lawn areas around the Day Care Center. The lawn areas shall be maintained according to Type 2 Grass Area. Playground pea gravel shall be tilled and raked. Weeds and grasses along perimeter fence lines shall be eradicated. The Contractor shall notify Day Care Center personnel prior to any application of herbicides and bug control.

(18) Maintain the Recreation Grounds and Management Conference Building

The Contractor shall maintain the grounds free of debris, provide bug control, and remove any low dead tree limbs.

(19) Weekly Sweep of Grounds

The Contractor shall conduct a weekly pick-up of any debris throughout the Center grounds, roadways and streets, and parking lots. The debris generated shall be removed and disposed of the same day.

(20) Signs Maintenance

The Contractor shall provide minor repair and/or refurbishment to existing signs, including posts and sign supports. Sign shall be repaired and/or refurbished to same size, color, design and durability as the original throughout the Center.

(21) Perimeter Fence Line Maintenance

The Contractor shall maintain the inside of the perimeter fence, including removal of debris and trash, grass, weeds, trees (less 2 inches in diameter) and all other vegetative growth to the ground or payment level within a maximum of 12 inches on the inside of the fence lines. The debris generated shall be removed and disposed all the same day.

(22) Roadway and Parking Lots Maintenance

The Contractor shall maintain roadways and parking lots by repairing minor damage, such as small potholes, cracks, or breaks.

b. Trouble Call Requirements

The Contractor shall perform trouble call work as necessary to ensure normal operation of those items listed in the General Requirements section 1 paragraph B, and maintain surfaced areas necessary to ensure safe and orderly condition. The Contractor also perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition, such as; traffic signal not operating, motorized gate not operating, etc.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with section C6.

a. Perimeter Fence Line Maintenance.

Fence line maintenance shall consist of the removal of grass, weeds, trees (less than 2 inches in diameter at ground level), and all other vegetative growth to ground or pavement level within a maximum 12 inches on both sides of the fence lines. Debris generated by fence line maintenance shall be removed and disposed of the same working day.

b. Unscheduled Snow and Ice Removal Services

Unscheduled snow and ice removal is defined as snow and ice removal that is not performed during normal work hours. The Contractor shall remove snow and ice to maintain safe access to facilities by the means of plowing, shoveling and/or abrasive melting agent. Areas include, but are not limited to, all roads and streets, taxi runway, parking areas, walkways, building entrances/exits (including stairs, handicapped ramps and landings leading to all building doors), storm water runoff and remove snow that are blocking refuse containers. Also the Contractor shall provide clear access to fire hydrants. Locations and quantities of roads, parking areas, and walkways are specified in Attachment J, maps I-SRP through 3-SRP. If desired, the Contractor can provide and install snow fencing to minimize plowing due to drifting snow in areas identified on the map labeled Attachment J.

c. Road Surface Repair.

Resurfacing, "overlaying" of pavements, is not included in this contract. Repair of large sections of bituminous and concrete pavements, requiring replacement due to excavation and repair of collapsed sections of underground pipes, culverts or other structures, will be ordered as IQ work per paragraph C6.3, Section C6.

d. Excavation

The Contractor shall provide excavation services when exposure of underground piping is required to make repairs. The Contractor shall

provide installation and removal of shoring, as required, to ensure safe working conditions for Contractor personnel. Upon completion of the excavation, the Contractor shall backfill and compact the excavation to the original grade. The Contractor shall break-up and remove concrete, asphalt and other debris and dispose of it at an approved disposal site.

e. Outdoor Chemical Applications, Tree's

The Contractor shall spray or inject ornamental trees with fertilizers, dormant oil and pesticides as required to maintain trees free of disease.

f. Outdoor Chemical Applications

The Contractor shall apply fertilizers, fungicides, insecticides, herbicides, pesticides, and other specified chemicals in order to maintain the Type 1 and Type 2 Grass areas and plant life, in strict accordance with Glenn Environmental programs Manual and FIFRA.

g. Indoor Chemical Application

The Contractor shall provide services to chemically spray, dust and place bait for the control and eradication of household pests, insects, rodents and other undesirable species. This service shall comply with all Federal codes and laws covering chemical applications and the services performed by an exterminator, licensed by the State of Ohio in this specific category. Specific attention should be given to building entranceways, rest rooms and areas involving food storage or preparation activities.

h. Type 3 Grass Edging

Edging, All sidewalks, driveways, street edges, curbs, and other paved areas located within this maintenance level shall be edged. Edged lines shall be neat and clean, and shall be free of scalping, rutting, bruising, and uneven and rough cutting. All edging shall be performed by mechanical (non-herbicidal) means, except where driveway and street pavement edges are not discernible due to grass encroachment. In these cases a straight and even line approximating the pavement edge shall be established and maintained by mechanical means. Herbicides shall not be used to eliminate or reduce normal mechanical edging along discernible straight paved edges such as sidewalks and, curbs. In conjunction with edging, all vegetation

shall be removed from expansion joints and cracks, and that has encroached onto the paved areas in all paved surfaces in the parcel. Herbicides can be used to reduce the amount of mechanical work that may otherwise be necessary. Debris generated by edging operations that falls or is thrown on sidewalks, curbs, gutters, or streets or is thrown on nearby grass shall be removed from the site and the same day the edging is accomplished and disposed of the same day as collected.

6. RECORDS AND REPORTS

Contract Requirement No. C12-99, Herbicide Reporting - A detailed pesticide application report shall be submitted upon completion of the work.

7. DETAILED SPECIFICATIONS

- a. All work shall be performed in accordance with Federal, State, NASA and Glenn policy, regulations, and procedures. Hours of work may vary in each task area.
- b. The Contractor shall provide ongoing review of all operations to ensure regulatory compliance and quality control, and recommend improvements to productivity and service.
- c. The Contractor shall plan and schedule work to ensure compliance with Government deadlines, schedules, and priorities.
- d. Work shall be accomplished with a minimum impact to normal Government business. In those cases where interference is unavoidable, the Contractor shall be responsible for making every effort to minimize the impact.
- e. The Contractor shall comply with all Federal, State and local safety and health requirements, which apply to the type of work being performed under this contract and all revisions or changes which, come into effect during the period of performance.
- f. The Contractor shall comply with all Federal, State, local and Glenn safety and health laws and regulations. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), officially cited in USC Title 7, Section 136, 61 Stat. 163 (1947), as amended, is the basis for federal pesticide legislation. The intent of FIFRA is to regulate the manufacture, transportation, application, storage and disposal of pesticides. The Federal law is administered by the U.S.E.P.A. Chapter 921 of the Ohio Revised Code defines the Ohio Pesticide Law. The Ohio Department of Agriculture enforces it within the State. The Occupational Safety and Health Act (OSHA) Safety and Health Standards

pertaining to FIFRA are contained in 29 CFR 1910.

- g. The Contractor shall be licensed by the State of Ohio to provide vegetation control in the categories specified in this contract. All work shall be in accordance with federal, state, local laws and Lewis regulations. All tanks, hoses, pumps, control valves, and gauges shall be free of visible deterioration, shall not leak, and shall operate at the manufacturers' recommended rates and pressures. Contractor furnished equipment that has failed shall be replaced or repaired by the Contractor prior to resuming operations. Extreme care shall be exercised to avoid entry of herbicides into drainage structures, streams, ditches, and storm sewers.
- h. The Contractor shall comply with the Glenn Environmental Programs Manual.
- i. The Contractor shall protect plants and wildlife in accordance with the Glenn Endangered Species Management Plan, Attachment J.
- j. Prior to entering and performing any grounds maintenance tasks in Area #34, and any other areas identified on the maps as hazard areas, the Contractor shall request and receive prior entry approval from the COTR.
- k. All Contractor Employees operating snow removal equipment required a Commercial Drivers License (CDL) and shall possess a CDL. Equipment operators for all equipment shall be fully qualified to operate the equipment. In addition to equipment operation, qualifications shall include a thorough knowledge of station pavement layout including all curbs, guardrails, parking lots, hydrants, traffic signs, and utility access covers.
- l. The Contractor shall furnish operator maintenance (e.g. daily oil level checks, tire air pressure checks, blade sharpening) on all equipment

SECTION C13: BUILDINGS AND STRUCTURES

1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section shall include PM, ROI, trouble calls, minor service request, and repair of buildings, structures, and related system components with their associated appurtenances, including, floors, walls, ceilings, doors, windows, stairs, roofing, exterior, painting, office furniture, machine tools, and structural metal work. All work shall comply with the applicable directives, manuals and instructions listed in Attachments J-C1.1, Section J.
- b. Attachment J-C13.1 lists all of the Building and Structures Maintenance, Repairs and Alterations systems to be serviced under the contract, which include:
 - (1) Buildings and Structures
 - (2) Handicap Doors
 - (3) Snow Melt Equipment

2. DEFINITIONS

Refer to Section C2.

3. GOVERNMENT FURNISHED ITEMS

No section specific GFP.

4. FIXED PRICE WORK

a. Recurring Services

The Contractor shall perform PM on systems listed in Attachment J-C13.1 in accordance with the contract requirements specified in this section.

Contract Requirement No. C13-01, Handicap Doors Annual PM.

b. "Trouble Call" Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of problem or malfunction, eliminate the cause(s), make repair(s), and restore the building component to satisfactory operating conditions.

c. Minor service requests

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The Contractor shall perform minor service request work in accordance with C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with Section C6.

6. RECORDS AND REPORTS

None.

7. DETAILED SPECIFICATIONS

None.

SECTION C14: HEATING PLANTS AND HOT WATER BOILERS

1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section shall include, operating oil-fired and natural gas power boilers; water sampling, testing, analysis and treatment; fuel oil handling and sampling; boiler start-up and shut-down; EM, PT&I, PGM and ROI; and minor repair of the boilers, compressed air system and associated facilities; annual boiler inspection and certification; and maintaining records and preparing reports in order to provide high/low pressure steam throughout the term of the contract period. All work shall comply with the applicable directives, manuals and instructions listed in Attachments J-C1.1, Section J.
- b. Attachment J-C14.1 lists all of the Heating Plants systems and equipment to be serviced under the contract which include:
- (1) Boilers
 - (2) Compressed Air system
 - (3) Feed Water System
 - (4) Condensate Return System
 - (5) Fuel system
 - (6) Control Systems
 - (7) Water Softeners
- c. Operation of Non-certified Boilers or Unfired Pressure Vessels. The Contractor shall not operate any power boiler that does not have a Valid Inspection Certificate. The COTR shall be notified if unsafe conditions are found, following repair of a pressure part, or after any major modification to boilers, control equipment or auxiliaries. The affected equipment shall not be placed back in operation until written authorization is received from a certified boiler inspector.

2. DEFINITIONS

- a. Lay-up. When a boiler is in lay-up it is in storage. A boiler can be laid-up either wet or dry. This is usually performed during the summer to retard corrosion and helps assure trouble-free operation during the next heating season.

- b. Stand-by. When a boiler is in stand-by it means it is available for services at any time.

3. GOVERNMENT FURNISHED PROPERTY

None.

4. FIXED PRICE WORK

a. Recurring Services

The Contractor shall perform PM, PT&I, PGM, trouble calls, minor service requests, and Operation on the systems and equipment listed in Attachment J-C14.1 in accordance with the contract requirements specified in this section and listed in Attachment J-C14.2. The following contract requirements shall be satisfied by performing the activities itemized on the related Maintenance Checklists contained in Attachment J-C14.2.

(1) Contract Requirement No. C14-01a, Steam Generation.

The Contractor shall operate, maintain and perform minor repairs on all Central Heating Plant equipment including, but not limited to, power boilers, controls, gauges, flowmeters, pumps, chemical treatment system, fans, valves, piping, regulators, fuel oil tanks, monitoring systems, and heaters. Equipment shall be operated continually, at designated capacities and efficiencies, compliant with posted approved operating procedures, to meet year-round domestic hot water and heating requirements and to ensure system reliability. Failure of the Government to supply water, or electricity for plant operations will relieve the Contractor of responsibility for operations during the time period the Government is remiss in these supply functions. The Contractor shall return the boiler(s) on-line within 30 minutes of resumption of utility services.

Steam Pressure. The Contractor shall maintain the steam pressure at a minimum of 100 psig exiting Bldg. 12, reduced to 15 psig entering the serviced buildings and a minimum of 12 psig exiting Bldg. 500 reduced to 8-9 psig during the winter and 10 psig during the summer entering Bldg. 501.

Operator Checks. The Contractor shall maintain operating logs on all operating equipment that will note operator checks and adjustments, and a record file noting normal or abnormal operating conditions, deficiencies or malfunctions, and corrective action taken. All recording charts and required logs shall be filed chronologically and kept in the area designated by the COTR.

Operation Procedures. The Contractor shall maintain complete control of the central heating plant operation by preparation and adherence to the written and posted operating procedures. The operating procedures shall be prepared by the Contractor per the following, in order of precedence: (1) manufacturers' instructions, (2) industry standards and national codes. As a minimum, the procedures shall include:

- (a) Plant systems and equipment operating procedures including start-up, shutdown, emergency and lay-up procedures.
- (b) Performance test records for major equipment.
- (c) Sample operator logs.
- (d) Trouble shooting procedures for major equipment and systems.
- (e) Clearly defined duties, responsibilities, and qualifications for all operations and maintenance positions.

The approved procedures shall be instituted upon commencement of contract operations. The Contractor shall update and revise all plant operation, distribution and maintenance procedures on a continuing basis as required by physical or operational changes at no additional cost.

- (2) Contract Requirement No. C14-01b, Boiler Water Treatment Operation. The Contractor shall provide water treatment operation for the boilers as specified below, collect and test water samples, record results, and maintain water condition to the limits as specified. At least once every shift, the Contractor shall collect feed water, boiler water and condensate

samples from the operating boiler for chemical residual testing. The Contractor shall develop and implement a Boiler Water Treatment Operation Plan (BWTOP). The plan shall address MSD's of all chemicals, corrosion control, spill control, and training. The Contractor shall perform and record log entry results of daily on-site laboratory tests to determine or measure levels of hardness, causticity or alkalinity, phosphate, sulfite, total dissolved solids (TDS), corrosion studies, and acidity (pH). The Contractor shall collect monthly samples of feed water, boiler water and condensate and ship or deliver them to an independent laboratory for analysis. A copy of the analysis shall be provided to the COTR. Boiler water shall be maintained within the following chemical residual limits per the approved BWTOP:

Steam Boilers Operating Parameters

<u>System Type</u>	<u>Treatment Control Range</u>	<u>Sulfite Control Range</u>	<u>Neutralized Conductivity</u>
Building 12/1	20 - 30 ppm PO4	30 -50 ppm SO3	2500 - 3000
Building 12/2	20 - 30 ppm PO4	30 -50 ppm SO3	2500 - 3000
Building 12/3	20 - 30 ppm PO4	30 -50 ppm SO3	2500 - 3000
Building 12/4	20 - 30 ppm PO4	30 -50 ppm SO3	2500 - 3000
Building 12/5	20 - 30 ppm PO4	30 -50 ppm SO3	2500 - 3000
Building 142*	N/A	80 -100 ppm SO3	1500 - 2000
Building 301*	20 - 30 ppm MO+3	30 -50 ppm SO3	4000 - 4500
Building 302*	20 - 30 ppm MO+3	30 -50 ppm SO3	4000 - 4500
Building 333/1*	20 - 30 ppm MO+3	30 -50 ppm SO3	4000 - 4500
Building 333/2*	20 - 30 ppm MO+3	30 -50 ppm SO3	4000 - 4500
Building 500/8*	20 - 3.0 ppm MO+3	30 -50 ppm SO3	4000 - 4500
Building 500/9*	20 - 30 ppm MO+3	30 -50 ppm SO3	4000 - 4500
Building 500/10*	20 - 30 ppm MO+3	30 -50 ppm SO3	4000 - 4500

* or equal technology

Steam Boilers Condensates Operating Parameters

pH
8.2 - 9.0

Conductivity
0 - 100

Hot Water Boilers Operating Parameters

<u>System</u>	<u>Type</u>	<u>Treatment Control Range</u>
Building 35	Hot Water	100 - 150 ppm Mo+6
Building 35/10	Hot Water	100 - 150 ppm Mo+6
Building 101 (2 blrs)	Hot Water	100 - 150 ppm Mo+6
Building 142 (2 blrs)	Hot Water	100 - 150 ppm Mo+6
Building 145 (2 blrs)	Hot Water	100 - 150 ppm Mo+6
Building 204	Hot Water	100 - 150 ppm Mo+6
Building 302 (2 blrs)	Hot Water	100 - 150 ppm Mo+6
Building 309/FRT	Hot Water	100 - 150 ppm SO3
Building 309/RR	Hot Water	100 - 150 ppm Mo+6
Building 322	Hot Water	100 - 150 ppm Mo+6
Building 333/X	Hot Water	100 - 150 ppm Mo+6
Building 398	Hot Water	100 - 150 ppm Mo+6

Water Softeners

<u>Parameter</u>	<u>ppm</u>
SB- 142 Soft T.Hard	0
WB- 142 Soft T.Hard	0
SB- 301 Soft T.Hard	0
SB- 302 Soft T.Hard	0
SB- 500/2 Soft T.Hard	0
SB- 12/1 Soft T.Hard	0
SB- 12/2 Soft T.Hard	0
SB- 12/3 Soft T.Hard	0
SB- 12/4 Soft T.Hard	0
DI- 333 Carbon 1 Cl2	0
DI- 333 Soft 1 T-hard	0
DI- 333/2 Carbon Cl2	0
DI- 333/2 Soft T-hard	0

Corrosion Parameters (condensate and condenser water)

<3mpy on Steel

<1 on Copper

The Contractor shall submit the BWTOP for approval 30 days prior to beginning work. Any changes to BWTOP must be approved by the Government before implementing.

- (3) Contract Requirement No. C14-01c, Fuel Oil Handling, Tank Monitoring, and Sampling. The Contractor shall furnish the fuel oil for boiler operation and liquid propane used for burner ignition. The fuel oil level in any tank shall not fall below 2,500 gallons. A minimum (total of two tanks) of 12,500 gallons of fuel oil shall be maintained at Bldg. 12. The Contractor shall maintain an accurate record of the amount of fuel received in each delivery and shall, when requested by the COTR, obtain and submit fuel samples for verification of type of fuel supplied. The Contractor shall be responsible for any fuel spill cleanup that is related to fueling operations. The Contractor shall maintain all fuel oil handling equipment including storage tanks, pumps, piping, and heaters and shall comply with all federal regulations pertaining to fuel operations
- (4) Contract Requirement No. C14-02a, Boiler Monthly PM.
- (5) Contract Requirement No. C14-02b, Boiler Annual PM. Annual PM shall include the scheduled shutdown of boiler heating equipment for repair or replacement of malfunctioning equipment detected during operations, PM and inspections that are deferrable due to operational requirements and do not pose a danger to life or property. Prior to shutdown, the Contractor shall perform an operational test of the safety relief valves, low water alarms, flame out controls, and other safety devices. The Contractor shall schedule the work so a certified boiler inspector witnesses the operational test. As a minimum, the Contractor shall

perform Annual PM as specified in the procedures in Attachment J-C14.2, Section J.

(6) Contract Requirement No. C14-02c, Boiler Annual Certification.

The boiler certification process consists of 4 phases: external inspection, internal inspection, hydrostatic pressure testing, and operational and safety testing. The Contractor shall notify the COTR when the boiler is ready for testing, normally simultaneously with performance of Contract Requirement C14-02b, Boiler Annual PM. The Contractor will schedule and perform a hydrostatic pressure test and an operational test. The Government representative and the certified boiler inspector shall be present during testing.

(7) Contract Requirement No. C14-03, Pump Annual PM.

(8) Contract Requirement No. C14-04b, Air Compressor Annual PM.

(9) Contract Requirement No. C14-05, Control Panel Annual PM.

(10) Contract Requirement No. C14-06, Relief Valve Annual PM.

(11) Contract Requirement No. C14-07, Transmitter Annual PM.

(12) Contract Requirement No. C14-08, Valve Annual PM.

(13) Contract Requirement No. C14-09, Steam Trap Annual PM.

(14) Contract Requirement No. C14-10, Water Tank Annual PM.

(15) Contract Requirement No. C14-11, Fuel Oil Storage Tank 4 Year PGM.

(16) Contract Requirement No. C14-12, Steam Turbine Annual PM.

(17) Contract Requirement No. C14-14, Burner, Oil Annual PM.

(18) Contract Requirement No. C14-16a, Forced/Induced Draft Fan Quarterly PM.

(19) Contract Requirement No. C14-16b, Forced/Induced Draft Fan Annual PM.

(20) Contract Requirement No. C14-17, Pump, Sump Annual PM.

(21) Contract Requirement No. C14-19, Chemical Feed System Annual PM.

- (22) Contract Requirement No. C14-20a, Water Softener Quarterly PM.
- (23) Contract Requirement No. C14-20b, Water Softener Annual PM.

b. "Trouble Call" Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with Section C6.

6. RECORDS AND REPORTS

- a. Contract Requirement No. C14-99, Maintenance and Production of Heating Plants Records and Reports.

b. Additional and maintained records and reports shall be updated after completion of the work by the Contractor and maintained in a history file throughout the term of the contract (see "Records and Reports" paragraph of the "MANAGEMENT" clause). Additional records and reports include:

- (1) Operating Records, Reports, and Logs. The Contractor shall maintain operating records, laboratory records, maintenance records, emergency condition records, fuel tank readings, and operating cost records daily. The Contractor shall keep copies of all records at the Central Heating Plant, Building 12.
- (2) The Contractor shall maintain and post current signs and instructions including, but not limited to, no smoking, electrical and chemical hazard warning signs, routine daily instructions, and routine laboratory

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analyses procedures required by the COTR and Federal, state and local regulations.

- (3) The Contractor shall maintain a log posted on each boiler in operation at the Central Steam Plant identifying the operator's name, date, time, observations made, checks of flame failure and low water cut off devices, meter readings, operational changes and maintenance performed during each visit.
- (4) The Contractor shall maintain a daily record of all treatment chemicals used and of all analyses performed.
- (5) Reports required to be given to the COTR and their frequency include:

<u>Name</u>	<u>Frequency</u>
Monthly Fuel Usage Bldg. 12 & 500	Monthly
Daily Operating Logs	As Required
Heat Plant Operation	Monthly

7. DETAILED SPECIFICATIONS

None

SECTION C15: HEATING, VENTILATING, AIR CONDITIONING, AND REFRIGERATION1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section shall include PM, PT&I, PGM, and ROI, operation, trouble calls, minor service requests, including, humidification systems, heating furnaces, centrifugal, scroll, rotary screw and reciprocating liquid- and air-cooled central air conditioning systems, direct expansion package air conditioning units, computer room cooling units, window and through-the-wall heating and air conditioning units, air handling units, convectors and unit heaters, compressors, blowers, ventilation, exhaust and make-up fans, service valves, dampers, condensers, condenser water systems, coils, chillers, purge units, cooling towers, EMCS, controls, ductwork, piping, motors, evaporators, chilled water systems, air filters and dryers, fan coil units, water coolers, beverage coolers, refrigerated food displays and salad coolers, ice machines, refrigerators, and reach-in freezers; performance of seasonal equipment start-ups and shut-downs; surface clean of air diffusers, duct cleaning, and exhaust grills; and maintaining records and preparing reports to ensure safe and efficient equipment operation. All additional costs associated with performance of refrigerant leak detection, reclamation and recycling shall be provided at no additional cost to the Government. All work shall comply with the applicable directives, manuals and instructions listed in attachments J-C1.1, Section J.
- b. Attachment J-C15.1 lists all of the HVAC, Refrigeration, and Management Control systems and equipment to be serviced under the contract which include:
- (1) Split System Air Conditioners/Condensing Units
 - (2) Package Air Conditioners
 - (3) Rotary Screw Chiller Systems
 - (4) Air Handling Units
 - (5) Fan Coil Units
 - (6) Chemical Feed Pumps
 - (7) Air Compressors (Control Air)
 - (8) Centrifugal Chiller Systems
 - (9) Refrigerated and Desiccant Air Dryers
 - (10) Exhaust/Make-up Fan/Blower Assemblies

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- (11) Forced Air Heaters
- (12) Package AC Units with Gas Heat
- (13) Refrigerators and Freezers
- (14) Beverage/Dairy Dispenser/Coolers
- (15) Salad Coolers
- (16) Refrigerated Food Display Cases
- (17) Ice Machines
- (18) Water Coolers
- (19) Window Air Conditioners
- (20) Heat Exchangers
- (21) Glycol AC Units
- (22) Fume/Lab Exhaust Hoods
- (23) Mobile Refrigerant Reclamation Units
- (24) Humidification Systems
- (25) Pumps
- (26) Valves
- (27) Cooling Towers and Associated Equipment
- (28) Pneumatic Panels
- (29) VAV Boxes
- (30) Reciprocating Chillers
- (31) Condensers

2. DEFINITIONS

Refer to Section C2

3. GOVERNMENT FURNISHED ITEMS

Refrigerant Management Software

4. FIXED PRICE WORK

a. Recurring Services

The Contractor shall perform PM, PT&I, PGM and Operation on the systems listed in Attachment J-C15.2 in accordance with the contract requirements specified in this section and listed in Attachment J-C15.2. The following contract requirements shall be satisfied by performing the activities itemized on the related Maintenance Checklists contained in Attachment J-C15.2 at the frequencies specified therein.

- (1) Contract Requirement C15-01a, Split System Air Conditioner/Condensing Unit Semi-Annual PM.
- (2) Contract Requirement C15-01b, Condenser Unit Semi-Annual PM.

- (3) Contract Requirement C15-02a, Package Air Conditioner Semi-Annual PM.
- (4) Contract Requirement C15-03b, Rotary Screw Chiller Quarterly PM.
- (5) Contract Requirement C15-03c, Rotary Screw Chiller Annual PM.
- (6) Contract Requirement C15-03d, Rotary Screw Chiller Annual PT&I.
- (7) Contract Requirement C15-04a, Air Handling Unit Semi Annual PM.
- (8) Contract Requirement C15-04b, Air Handling Unit Annual PM.
- (9) Contract Requirement C15-05a, Fan Coil Unit Semi-Annual PM.
- (10) Contract Requirement C15-06, Chemical Feed System Annual PM.
- (11) Contract Requirement C15-07a, Control Air System Annual PM.
- (12) Contract Requirement C15-08b, Centrifugal Chiller Semi-Annual PM.
- (13) Contract Requirement C15-08c, Centrifugal Chiller Annual PM.
- (14) Contract Requirement C15-08d, Centrifugal Chiller Annual PT&I.
- (15) Contract Requirement C15-09, Control Air Dryer Semi-Annual PM.
- (16) Contract Requirement C15-10a, Exhaust/Fan/Blower Semi-Annual PM.
- (17) Contract Requirement C15-10b, Make-Up Fan Quarterly PM.
- (18) Contract Requirement C15-11, Forced Air Heater Annual PM.
- (19) Contract Requirement C15-12, Package AC W/Gas Heat Semi-Annual PM.
- (20) Contract Requirement C15-13, refrigerator/Freezer Semi-Annual PM
- (21) Contract Requirement C15-14, Beverage/Dairy Dispenser/Cooler Semi-Annual PM.
- (22) Contract Requirement C15-15, Salad Cooler Semi-Annual PM
- (23) Contract Requirement C15-16, Refrigerated Food Display Case Semi-Annual PM
- (24) Contract Requirement C15-17, Ice Machine Semi-Annual PM.
- (25) Contract Requirement C15-18, Water Cooler Annual PM.
- (26) Contract Requirement C15-19, Window Air Conditioner Annual PM.
- (27) Contract Requirement C15-21, Glycol AC System Semi-Annual PM.

- (28) Contract Requirement C15-22, Fume/Lab Exhaust Hood Semi-Annual PM.
- (29) Contract Requirement C15-23, Mobile Refrigerant Reclaimer Annual PM.
- (30) Contract Requirement C15-24, Humidification Systems Annual PM.
- (31) Contract Requirement C15-25, Pumps Annual PM
- (32) Contract Requirement C15-27b, Cooling Tower Buildings Annual PM.
- (33) Contract Requirement C15-27c, Cooling Tower Buildings Biennial PGM.
- (34) Contract Requirement C15-29, Pneumatic Panel Annual PM.
- (35) Contract Requirement C15-30, VAV Box Annual PM.
- (36) Contract Requirement C15-31b, Reciprocating Chiller Semi-Annual PM.
- (37) Contract Requirement C15-31c, Reciprocating Chiller Annual PM.
- (38) Contract Requirement C15-31d, Reciprocating Chiller PT&I
- (39) Contract Requirement C15-32, Chiller Water Facilities Operation.

The Contractor shall perform daily check/visual inspection of the Chiller Water Facility Plants including;

- * Check units for proper operation
- * Check oil level, (add if needed) take oil pressure reading
- * Check purge system, remove water if present
- * Check refrigerant charge, if low investigate for leak, repair and add refrigerant or recharge.
- * Check operating control (setpoint) operational performance in order to provide supply conditional water temperature, range from 40 to 45 degree F, adjust if necessary
- * Check and inspect for excessive noise and vibration
- * Check PRV motor and linkage
- * Check cooling tower for proper operation (only small tower, the ones that support the chillers)
- * Inspect piping, valves and pumps for leaks, tighten connections and repair components
- * Check refrigerant leak detection panels located in Bldg. 9, 94, 142, 301, 302, 309, and 500 to ensure

proper operations. In the event of a refrigerant leak detection alarm that evacuates a chiller water facility, the Contractor shall ensure that all required safety precautions, including the wearing of personnel protective equipment, are taken before re-entering the facility to take corrective actions. In event of utility services failure the Contractor shall return the chiller systems to full operational status within 30 minutes of delivery of utility services.

The Contractor shall maintain operating logs that will note operator checks and adjustments, and a record file noting normal or abnormal operating conditions, deficiencies or malfunctions, and corrective actions taken. All records and required logs shall be filed chronologically and kept in an area designated by the COTR.

- (40) Contract Requirement C15-33, Water Treatment Operation (Cooling Tower Water Treatment and Closed Loops). The Contractor shall provide water treatment operation for the cooling towers and closed loops, collect water samples, test the samples collected, record results, and maintain water condition to the limits as specified below. The Contractor shall develop and implement a water treatment operation plan (WTOP). The plan shall address MSD's of all chemicals, corrosion control, spill control, training, testing procedure, and Legionella control consistent with CTI, ASHRAE, CDC and OSHA. The Contractor shall collect monthly samples of water and ship or deliver them to an independent laboratory for analysis. A copy of the analysis shall be provided to the COTR. The Contractor shall submit the WTOP for approval 30 days prior to beginning work. Any changes to WTOP must be approved by the Government before implementing. Cooling Tower Water Treatment and Closed Loops shall be maintained within the following chemical parameters limits per the approved WTOP.

COOLING TOWER AND CLOSED LOOP PARAMETERS

Cooling Towers Operating Parameters - Large Towers

<u>System</u>	<u>Present Cycles</u>	<u>Treatment Control Range</u>	<u>pH</u>
Towers 1 and 4	2.8 - 4.0	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Tower 2	4.0 - 5.5	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Towers 3 and 6	2.8 - 4.0	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Tower 5	4.0 - 5.5	0.5 - 1.5 ppm Mo+6	8.5 - 9.0

Cooling Towers Operating Parameters - Small Towers

<u>System</u>	<u>Present Cycles</u>	<u>Treatment Control Range</u>	<u>pH</u>
Building 142	4.0 - 5.2	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Building 301/Old	5.3 - 6.5	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Building 301/New	4.8 - 6.0	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Building 302	5.3 - 6.5	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Building 333	4.8 - 6.0	0.5 - 1.5 ppm Mo+6	8.5 - 9.0
Building 500	5.3 - 6.5	0.5 - 1.5 ppm Mo+6	8.5 - 9.0

Micro Biological Operating Parameters

All Cooling Towers Less Than 100 Biomass (RLU)

All Closed-Loops Less Than 25 Biomass (RLU)

Closed Water Glycol Systems Operating Parameters

<u>System</u>	<u>Type</u>	<u>Treatment Control Range</u>	<u>pH</u>
Building 4	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 7	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 14/100B	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 14/126	Hot	-10 to -20 Degrees F	8.0 - 10.0
Building 55	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 102	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 124	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 143/1	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 143/2	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 203	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 301/Mir	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 309/Frt	Chilled	-10 to -20 Degrees F	8.0 - 10.0
Building 309/Rr	Chilled	-10 to -20 Degrees F	8.0 - 10.0

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SECTION C15

Building 309/205 Chilled -10 to -20 Degrees F 8.0 - 10.0

Closed Water Systems Operating Parameters

<u>System</u>	<u>Type</u>	<u>Treatment Control Range</u>
Building 4	Hot	100 - 150 ppm Mo+6
Building 5	Chilled	100 - 150 ppm Mo+6
Building 9	Chilled	100 - 150 ppm Mo+6
Building 21/X	Hot	100 - 150 ppm Mo+6
Building 60	Hot	100 - 150 ppm Mo+6
Building 64/1	Chilled	150 - 200 ppm Mo+6
Building 64/2	Chilled	150 - 200 ppm Mo+6
Building 94	Chilled	1.2 - 1.8 ppm Mo+6
Building 105/SPA	Hot	100 - 150 ppm Mo+6
Building 105/PER	Hot	100 - 150 ppm Mo+6
Building 142/OLD	Chilled	100 - 150 ppm Mo+6
Building 142/NEW	Chilled	100 - 150 ppm Mo+6
Building 301	Chilled	100 - 150 ppm Mo+6
Building 301/MIR	Chilled	150 - 200 ppm Mo+6
Building 302	Chilled	100 - 150 ppm Mo+6
Building 333	Chilled	100 - 150 ppm Mo+6
Building 500	Chilled	100 - 150 ppm Mo+6

D.I. Systems

<u>Parameter</u>	<u>Megohm</u>
DI- 49/1c Resistivity	.11 - 2.0
DI- 49/24 Resistivity	.11 - 2.0
DI- 333 Resistivity	.11 - 2.0

Corrosion Parameters (all systems)

<3mpy on Steel
<1mpy on Copper

(41) Contract Requirement C15-36, Refrigerant Usage Recording.

The Contractor shall detail the types and amounts of refrigerants used on a continuing basis and in accordance with OSHA and EPA guidelines. Contractor shall provide by the 10th of each month all required records. Records shall be filed chronologically and kept in an area designated by the COTR. The Government shall provide Refrigerant Management software.

(42) Contract Requirement C15-37, Heat Pump Quarterly PMb. Trouble Call Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. **INDEFINITE QUANTITY WORK**

Indefinite quantity work shall be ordered in accordance with Section C6.

6. **RECORDS AND REPORTS**

Contract Requirement No. C15-99, Maintenance and Production of HVAC Systems Records and Reports. Records and reports shall be updated after completion of work by the Contractor and maintained in a history file throughout the term of the contract (see "Records and Reports" paragraph of the "MANAGEMENT" clause).

7. **DETAILED SPECIFICATIONS**

a. The Contractor shall provide HVAC technicians that are certified in the handling of refrigerants to the EPA standards for Universal Certification category.

SECTION C16: UTILITY DISTRIBUTION SYSTEMS1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section includes PM, PT&I, ROI, operation, trouble calls, minor service requests, and repair of equipment and system components with their associated appurtenances including controls, metering, regulators, pumps, valves, manholes, valve boxes, insulation, piping, and excavation and shoring for utility repairs. All work shall comply with the applicable directives, manuals and instructions listed in Attachments J-C1.1, Section J.
- b. Attachment J-C16.1 lists all of the Utility Distribution systems and equipment to be serviced under the contract which include:
- (1) The Domestic Water System
 - (2) Chilled Water Distribution System
 - (3) Steam Condensate System
 - (4) Service Air System
 - (5) Natural Gas System
 - (6) Industrial and Sanitary Waste Piping System
 - (7) Cooling Tower Water Distribution Piping System
 - (8) Waste Basin Facility Operation.
 - (9) Sewage Pumping Operation.
 - (10) Eyewash and Safety shower

2. DEFINITIONS

Refer to Section C2.

3. GOVERNMENT FURNISHED PROPERTY

No section specific GFP.

4. FIXED PRICE WORKa. Recurring Services

The Contractor shall perform PM, PT&I, PGM, and Operations on specific components, systems, and equipment listed in Attachment J-C16.1 in accordance with the contract requirements specified in this section and listed in Attachment J-C16.2. The following contract requirements shall be satisfied by performing the activities itemized on the related Maintenance Checklists contained in Attachment J-C16.2 at the frequencies therein.

- (1) Contract Requirement No. C16-01, Air Compressor Annual PM.
- (2) Contract Requirement No. C16-03, Backflow Preventer Annual PM.
Backflow preventers shall be tested annually within 30 days of receipt of the test forms from the Government. The form shall be completed by State of Ohio certified technical personnel and returned to the COTR for a signature. The COTR will return the Contractor copy of the test form.
- (3) Contract Requirement No. C16-04, Pump Annual PM.
- (4) Contract Requirement No. C16-05, Steam Trap Annual PM.
- (5) Contract Requirement No. C16-06, Pump, Sump Annual PM.
- (6) Contract Requirement No. C16-07, Sewage Pumping Operation.
The Contractor shall maintain 100% operational status and system integrity of the sewage pump facilities (Bldg. 26, 400) for proper operation, make necessary adjustments, and record any discrepancies and report them to COTR in writing within 3 days.
- (7) Contract Requirement No. C16-08, Waste Basin Facility Operation
The Contractor shall maintain 100% operational status and system integrity of the industrial waste basin facility (Bldg. 103), ensuring proper operation, making necessary adjustments and recording any discrepancies and reporting them to the COTR. The following specific functions shall be performed three times each week:
 - (a) Inspect oil separator (skimmer) for proper operation
 - (b) Check oil level in waste holding tank, arrange for disposal of excessive oil from tank
 - (c) Inspect valve inlet pits to ensure they are dry, if contain liquid pump out valve inlet pits
 - (d) Check water level in basin #3, when basin is $\frac{3}{4}$ full, pump to sanitary sewer until empty
 - (a) Check pumps for proper operation, make necessary adjustments to pumps
- (8) Contract Requirement No. C16-09, Waste Basin Semi-Annual PM
- (9) Contract Requirement No. C16-10, Eyewash & Safety Shower Annual PM

b. Trouble Call Requirements

The Contractor shall perform trouble call work as necessary to determine the cause of system and equipment malfunctions, eliminate the cause(s), and restore the system or equipment to satisfactory working condition.

c. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. INDEFINITE QUANTITY WORK

Indefinite quantity work shall be ordered in accordance with Section C6.

6. RECORDS AND REPORTS

Contract Requirement No. C16-99, Maintenance and Production of Utility System Records and Reports.

Additional completed records and reports shall be maintained by the Contractor in a history file throughout the term of the contract (see "Records and Reports" paragraph of the "MANAGEMENT" clause). Additional records and reports include:

Backflow Preventer Certification

Annually

7. DETAILED SPECIFICATIONS

- a. The Contractor shall comply with NASA Procedures Manual for plumbing, heating, ventilating, air conditioning, system noise, and fire protection.
- b. The Contractor shall provide welders that are certified for all positions, for pressure vessel welding, and be qualified in accordance with the requirements of section IX of the ASME BPV Code.
- c. The Contractor shall provide technicians certified by the State of Ohio for inspection and repair on backflow preventers.

SECTION C17: MAINTENANCE RELATED ENVIRONMENTAL SERVICES

1. GENERAL REQUIREMENTS

- a. General Intention. The work under this section shall include trouble calls and hazardous waste/substance collection, packaging, transportation, and spill cleanup. The work shall include the support of all maintenance activities and conform to the Class 1 through Class 4 hazardous abatement provisions. Tasks shall include, but not limited to, the removal of gaskets, paint, floor tiles, roofing, plaster, and thermal insulation. Perform insulation services to remove and replace damaged or defective insulation from HVAC and piping systems. Spill cleanup activities shall include asbestos, lead, mercury, oil, paint and other potentially hazardous materials. Large-scale (those involving approximately 4 square feet or 4 linear feet) hazardous abatement projects and spill cleanup will not be included in the fixed price portion of the Contract. Glenn Research Center is permitted as a Small Quantity Accumulation Storage Site located at Building 212. All hazardous waste/substances transported by the Contractor shall be delivered to Building 212. All work shall comply with the applicable directives, manuals, and instructions listed in Attachments J-C17.2, Section J.
- b. Regulation Compliance. Hazardous waste/substance work shall be consistent with and in strict compliance with Federal Environmental Protection Agency (EPA), pertinent Federal, State and local regulations promulgated pursuant to the Resource Conservation and Recovery Act (RCRA), OSHA and other regulations applicable to small quantity generator sites as identified by Title 40 of Code of Federal Regulations. Employee certification training records shall be kept current. The records shall show employee name, subject matter, date and hours of training on the subject. Each employee shall sign the training record for each training subject.
- c. Waste Characteristics. The Contractor shall be required to handle a wide variety of hazardous waste/substances in the performance of this contract requirement. Most hazardous waste/substances shall be in solid form, although there shall also be some gaseous, liquid, and semi-solid wastes, such as, but not limited to, paint, oil or grease, sludge, asbestos and assorted clean up materials that are unsuitable for re-use as determined by the Government Competent Person. The following waste/materials are not included in the scope of work:
- (1) Municipal trash and refuse

- (2) Radioactive material
- (3) Infectious and medical waste
- (4) Ordnance (propellants, explosives, pyrotechnics)

- d. Hazardous Waste/Substance Spill Cleanup. The Contractor shall clean up all hazardous waste/substance spills that occur during the performance of this contract. The Contractor shall work continuously to contain and clean up the spill and package the material. The Contractor shall not leave the site until all work is completed and the Government Competent Person releases the Contractor. The Government Competent Person will maintain a log on the spill site and write down all significant events and the times that they occurred.

Hazardous waste/substance spills may include, but not be limited to: automobile gas, fuel oil, diesel oil, transformer oil, hydraulic and lube oils, paint related materials and solvents. The Government Competent Person will provide all information available on the material at the spill site, prior to the Contractor starting work.

2. **DEFINITIONS**

Refer to Section C2.

3. **GOVERNMENT FURNISHED ITEMS**

No section specific GFP.

4. **FIXED PRICE WORK**

- a. Recurring Services. The Contractor shall perform trouble call work as necessary to support the maintenance and repair activities under the scope of required services. They are to determine the cause of the problem and eliminate the problem in order to restore the system, equipment or area to satisfactory working condition and to ensure a safe environment.
- b. Hazardous Waste/Substance Packaging and Transportation. All packaging and transporting of hazardous waste/substances shall be performed by the Contractor as trouble calls. Packaging and transport of hazardous waste/substances from one location will be considered as part of the removal. All packaging containers and other items required to support the packaging and transport effort shall be provided by the Government. The Contractor shall not transport materials off the Center property. Any incidental cleanup

required when packaging or transporting hazardous waste/substances shall be a part of the trouble call.

- c. The Contractor shall have air and bulk sample cartridges analyses, when required, performed by an independent organization. The Government will take the samples and provide them to the Contractor. Historically the level of annual activity has been approximately 30 bulk samples per year and 125 air samples per year.

d. Minor service requests

The Contractor shall perform minor service request work in accordance with C5.

5. **INDEFINITE QUANTITY WORK**

Indefinite quantity work shall be ordered in accordance with Section C6.

Hazardous Waste/Substance Spill Clean Up. Waste of unknown origin or identity will require identification by the Government Competent Person.

6. **RECORDS AND REPORTS**

Contract Requirement No. C17-99, Maintenance and Production of Maintenance Related Environmental Services Records and Reports.

Reports Required. The Government will be responsible for completing reports required by the EPA. The Contractor shall provide information maintained as required to the Government Competent Person for completion of such reports within 1 workday following request.

Reports. The Contractor shall maintain all logs and records required by EPA, OSHA and other regulatory agencies. The logs shall be provided to the Government Competent Person upon demand.

7. **DETAILED SPECIFICATIONS**

None.

SECTION D - PACKAGING AND MARKING

(there are no clauses in this section)

SECTION E - INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE.

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
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* (none)

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
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(none)

E.2 INSPECTION OF SERVICES--FIXED-PRICE (FAR 52.246-4) (AUG 1996)

(a) Definitions. "Services," as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

(e) If any of the services do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no

increase in contract amount. When the defects in services cannot be corrected by re-performance, the Government may (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and (2) reduce the contract price to reflect the reduced value of the services performed.

(f) If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Government that is directly related to the performance of such service or (2) terminate the contract for default.

E.3 UNIT PRICES FOR CONTRACT PRICE REDUCTIONS

The dollar value of each scheduled operations or maintenance service activity required to be performed by the contractor is set forth in Attachment J-E3.1, "UNIT PRICES." The values listed therein will be used by the government in making any contract price reductions pursuant to clause E.2 above.

SECTION F - DELIVERIES OR PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.242-15	AUG 1989	STOP-WORK ORDER
52.247-34	NOV 1991	F.O.B. DESTINATION

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
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F.2 PERIOD OF PERFORMANCE - BASIC AND OPTIONS
(GRC 52.211-93) (OCT 2000)

- (a) The basic period of performance hereunder shall be for a period of three years commencing on June 2, 2003. Subsequent contract periods (two one-year option periods), if any, shall be for periods of one year each beginning on the expiration date of the previous contract period. If the Government requires performance of services after the basic contract period, notification to the Contractor of such requirement shall be in accordance with the clause entitled "Option to Extend the Term of the Contract." The basic and option periods together are considered to be the "core period."
- (b) The contract period of performance may be extended beyond five year core period pursuant to clause G.8, "AWARD OF ADDITIONAL CONTRACT PERIODS."

F.3 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within 15 calendar days prior to the current expiration date; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed five years. Under the

terms of clause G.8, however, additional contract terms may be earned by the contractor which would exceed five years.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
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None included by reference.

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
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1852.245-70	JUL 1997	CONTRACTOR REQUESTS FOR GOVERNMENT-OWNED EQUIPMENT
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G.2 SUBMISSION OF INVOICES

(a) The Contractor shall submit separate invoices for scheduled fixed price requirements and for the Delivery Order requirements under this contract.

(1) For the scheduled requirements, 1/24th of the annual price may be invoiced semi-monthly

(2) For Fixed Price Delivery Orders, a single invoice may be submitted, not more frequently than once every calendar month, for any Delivery Orders completed prior to the date of the invoice. No progress or interim payments will be made for work performed under Delivery Orders unless expressly provided for in the Delivery Order. Delivery Order invoices shall itemize, in ascending numerical order, each individual Delivery Order being invoiced.

(3) Fixed Price Level-of-Effort Delivery Orders shall be included on the single invoice for Delivery Orders and may be invoiced based on the hours performed through the dated of the invoice.

(b) Invoices shall be submitted to the address shown in block 25 on the face page of this contract.

G.3 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY
(NFS 1852.245-71) (JUN 1998) (ALTERNATE I) (MAR 1989) (GRC FILL IN)

(a) The Government property described in the clause at 1852.245- 77, List of Installation Accountable Property and Services, shall be made available to the Contractor on a no-charge basis for use in performance of this contract. This property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

See (1) NASA Procedures and Guidelines (NPG) 4200.1 "NASA Equipment Management Manual", (2) NPG 4200.2 "NASA Equipment Management User's Guide for Property Custodians", (3) NPG 4300.1 "NASA Personal Property Disposal", and (4) NPG 4310.4 "Identification and Disposition of NASA Artifacts" for applicable user responsibilities.

The contractor shall establish and adhere to a system of written procedures for compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

(b) (1) The official accountable record-keeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this contract provides for the contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The contractor's purchase order shall require the vendor to deliver the property to the installation central receiving area;

(ii) The contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area;

(iii) The contractor shall establish a record of the property as required by FAR 45.5 and 1845.5 and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the contractor. The contractor is accountable for all contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the contracting officer and notification of the SEMO. The contractor shall assume accountability and financial reporting responsibility for such property. The contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

(2) After transfer of accountability to the Government, the contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) and

document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the contracting officer.

(3) The contractor shall not utilize the installation's central receiving facility for receipt of Contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a quarterly basis, to the Contracting Officer and the Supply and Equipment Management Officer.

G.4 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES
(NFS 1852.245-77) (JUL 1997) (GRC MODIFICATION) (NOV 2000)

In accordance with the clause at 1852.245-71, Installation-Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so designated by the Contracting Officer.

(a) On-site office space, work area space, including utilities, and parking for all contractor technical and support personnel that are charged direct to this contract. The Office space consists of approximately 450 square feet of contiguous area in Building 107, including 4 separate offices, a conference room, an open area, and a small canteen area on the 2nd floor. On the first floor is a single room for storage of manuals and reference documents. Building 107 also contains the shop equipment and storage areas for materials and supplies and for the heavy equipment.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment to be made available is listed in Attachment J-G4.1. In addition, "untagged" equipment, specifically office furniture (desks, chairs, file cabinets, tables, etc.) is available for all on-site contractor personnel. The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(2) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at 1852.245-71, Installation-Accountable Government Property.

(3) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable

for under any other Government contract, without the Contracting Officer's prior written approval.

(c) Gasoline for both installation-provided and contractor-owned vehicles used in the performance of contract services.

(d) Publications and blank forms stocked by the installation.

(e) For all contractor personnel (regardless of location), the contractor shall provide for their own information technology (IT) needs. Minimally however, any desired connections to GRC's local area network and telephone services shall be obtained through a direct contractual arrangement with GRC's ODIN contractor. The contractor may provide for their remaining IT needs on their own or obtain any or all of these services (including desktops, software, maintenance, system administration and related services) directly from the ODIN contractor. The contact for the ODIN contractor, Affiliated Computer Services (ACS)-Government Solutions Group, is Jerry Stanley (216) 977-0700. In the event that the contractor chooses to provide for any of these additional IT services through means other than the GRC ODIN contractor, the contractor shall (i) strictly comply with all current and future Government, NASA, and Glenn relevant policies and standards and (ii) be solely responsible for ensuring compatibility and interoperability with Glenn systems wherever required.

(f) Safety and fire protection for Contractor personnel and facilities.

(g) Installation service facilities: None

(h) Fitness Center facilities under the following conditions:

(1) Applications shall be submitted to, and shall be processed by, the support service contractor currently operating the Fitness Center for the Government.

(2) The procedure for receiving and processing applications, obtaining a medical authorization from a licensed physician, and selection of applicants for participation will be similar to the procedure for Government employees.

(3) All individuals applying for participation shall sign a statement waiving the Government from any liability for personal injury during participation in Fitness Center activities.

(i) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty. In all instances of severe injury, or sudden life threatening illness (e.g. heart attack), the Emergency Medical Technician Squad shall be summoned immediately, by dialing 911. Referrals to tertiary care centers and for private physicians will be made in cases requiring long term follow-up, or when specific services required are unavailable on-site.

(j) Cafeteria privileges for Contractor employees during normal operating hours.

(k) Building maintenance, including janitorial services, for facilities occupied by Contractor personnel. Building maintenance includes structural repairs and HVAC unit service, but does not include contractor-desired alterations or improvements to office walls, floor coverings, or doors.

(l) Moving and hauling for government-direct on-site office moves as approved by the Contracting Officer.

(m) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation- Accountable Government Property.

(n) Complete maintenance for any installation-accountable vehicles or heavy equipment provided under this contract.

(o) A gated refuse area for landscape debris generated in the performance of this contract.

G.5 FACILITIES ACQUISITION AND REPLACEMENT

(a) In accordance with FAR 45.302-1, the Contractor shall furnish all facilities required for performing this contract except as provided in Attachment J-G4.1 of the contract. The Contractor shall notify the Contracting Officer when any item of the facilities described in the contract is either obsolete or no longer economically repairable. This notification shall include either a proposal for Contractor replacement or a statement that the need for the item no longer exists.

(b) Replacement shall be made in accordance with the policy at FAR 45.302-1.

(c) Contractor replacement of facilities, with the specific exception of the walkie talkies, which were provided by the Government shall be made at company expense, i.e., as indirect charges, at the end of their useful lives.

(d) The Government is responsible for any replacement of the walkie talkies.

G.6 RELEASABLE SUBMITTER INFORMATION (GRC 52.224-90) (FEB 1999)

Except for the information listed below, all dollar amounts, ceilings, descriptions, schedules, clauses, attachments and other information included in this contract are considered releasable agency records and may be provided by the Government to the general public through electronic, written, or other means in accordance with FOIA.

The following contract information is considered confidential commercial data:

TBD

G.7 CONTRACTING OFFICER TECHNICAL REPRESENTATIVE (COTR) -
TASK ORDER CONTRACTS (GRC 52.242-93) (SEP 1992)

(a) A Contracting Officer's Technical Representative (COTR) will be delegated under this contract pursuant to the clause at NFS 1852.242-70. The contractor will receive a copy of this delegation at the time of award of any contract or shortly thereafter. This delegation will take place on a NASA Form 1634 and will list not only the COTR delegated, but also his/her duties and responsibilities. Throughout this solicitation/contract there may be references made to a variety of different titles, including "NASA Project Manager", "NASA Technical Monitor", and "NASA Contract Monitor"; unless specifically stated otherwise, these refer to the COTR.

(b) A Task Manager other than the COTR may be assigned on any task order issued under this contract. Any such task manager has overall responsibility for the technical effort under the task order. Task Managers are not, however, authorized to make technical directions or perform any other duties or responsibilities as may be delegated to the COTR, or retained by the Contracting Officer.

G.8 AWARD OF ADDITIONAL CONTRACT PERIODS

As described herein, the contract period of performance may be extended beyond the core period based on the overall performance of the contractor.

(a) Period of Performance - The contract period of performance may be extended beyond the core period in one-year increments up to a total of 10 years based on the assessed level of contract performance. Contract performance will be evaluated in accordance with the Performance Evaluation Plan issued by the Contracting Officer.

(b) The Performance Evaluation Plan will be issued to the Contractor if and when the first option period is exercised. The Plan may be revised by the government at any time, and any revisions will become effective with the evaluation period beginning no sooner than 15 calendar days after the revised plan has been provided to the contractor. The performance criteria included in the Plan will be based on the performance standards specified in part C.3 of the Statement of Work and on the reasonableness of IDIQ order prices. The performance rating may also take into consideration any corrective actions that the Contractor has taken to improve performance where the standards have not been met.

(c) The contractor's performance will be evaluated every 6 months beginning in the 4th contract year. The annual rating will be the basis on which determinations will be made whether additional contract periods have been earned. The annual score will take into consideration the two 6-month scores.

(d) The contractor's performance must be rated "Excellent" in contract years 4, 5, 6, 7, and 8 in order to earn contract periods 6, 7, 8, 9, and 10, respectively. If after the conclusion of the annual evaluation period during contract years 4 through 8 the contractor fails to earn the corresponding award period, the government will commence the re-competition process. The contractor cannot be awarded an additional contract year in the final year of performance.

(e) Both parties have the right to cancel un-awarded award periods, for any reason, at any point after four complete contract years of performance. The parties must provide written notice of their intention to cancel un-awarded award periods at least 12 months prior to the effective date of the subsequent period.

(f) Determinations of Contractor performance ratings made under this clause are unilateral decisions made solely at the discretion of the Government.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

CLAUSE NUMBER	DATE	TITLE
52.223-5	APR 1998	POLLUTION PREVENTION AND RIGHT- TO-KNOW INFORMATION

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
1852.204-74	MAY 2002	CENTRAL CONTRACTOR REGISTRATION
1852.223-70	APR 2002	SAFETY AND HEALTH
1852.223-74	MAR 1996	DRUG- AND ALCOHOL-FREE WORKFORCE
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS (ALTERNATE II) (OCT 2000)

H.2 SECURITY CLASSIFICATION REQUIREMENTS (NASA 1852.204-75) (SEP 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of "Secret." See Federal Acquisition Regulation clause 52.204-2 in this contract and DD Form 254, Contract Security Classification Specification, Attachment J-H2.1.

H.3 MINIMUM INSURANCE COVERAGE (NASA 1852.228-75) (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

(a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability

coverage shall be at least \$100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

(b) Comprehensive general (bodily injury) liability insurance of at least \$500,000 per occurrence.

(c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury liability and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

(d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

"The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."

(e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least \$200,000 multiplied by the number of seats or passengers, whichever is greater.

H.4 (LIMITED) RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION (CBI) (GRC 52.203-91) (OCT 2000)

(a) NASA may find it necessary to release information submitted by the Contractor, either in response to this solicitation or pursuant to the provisions of this contract, to individuals not employed by NASA. Business information that would ordinarily be entitled to confidential treatment may be included in the information released to these individuals. Accordingly, by submission of this proposal, or signature on this contract or other contracts, the Contractor hereby consents to a limited release of its confidential business information (CBI).

(b) Possible circumstances where the Agency may release the Contractor's CBI include, but are not limited to, the following:

(1) To other Agency contractors and subcontractors, and their employees tasked with assisting the Agency in handling and processing information and documents in the evaluation, the award or the administration of Agency contracts, such as providing both

pre-award and post-award audit support and specialized technical support to NASA's technical evaluation panels;

(2) To NASA contractors and subcontractors, and their employees engaged in information systems analysis, development, operation, and maintenance, including performing data processing and management functions for the Agency.

(c) NASA recognizes its obligation to protect the Contractor from competitive harm that could result from the release of such information to a competitor. Except where otherwise provided by law, NASA will permit the limited release of CBI under subparagraphs (1) or (2) only pursuant to non-disclosure agreements signed by the assisting contractor or subcontractor, and their individual employees who may require access to the CBI to perform the assisting contract.

(d) NASA's responsibilities under the Freedom of Information Act are not affected by this clause.

(e) The Contractor agrees to include this clause, including this paragraph (e), in all subcontracts at all levels awarded pursuant to this contract that require the furnishing of confidential business information by the subcontractor.

H.5 CONTRACTORS' DUTIES AND RESPONSIBILITIES ON-SITE (GRC 52.209-90) (APR 2001)

(a) Badges

All Contractor personnel having a need to enter areas of the Glenn Research Center or Plum Brook Station shall have an identification badge or pass. This badge or pass shall be obtained at the entrance of the Glenn Research Center or Plum Brook Station. In addition to the requirements contained herein, the Contractor shall comply with GRC management instruction LMI 1900.3, Managing Conduct and Other Employee Issues, incorporated herein by reference and made a part hereof.

(1) Resident Contractors (employees with picture badges)

(i) The on-site company supervisor will notify the Main Gate Badge Clerk at PABX 3-2206 when a new employee is reporting to work. The Badge Clerk will give the company supervisor specific instructions as to how the new employee will be badged, photographed, fingerprinted, etc.

(ii) When an employee terminates and/or resigns employment, the company shall issue to the employee NASA Form C-10087, Non-NASA Separation Clearance Record. The company shall be responsible for making an inquiry of all offices listed on the form to see if the employee has any outstanding Government items. The employee shall then take this form to all offices that list he/she has

outstanding items. The employees last stop is for the return of their Government issued I.D. badge.

(iii) The Company shall ensure that the terminated and/or resigned employee has returned his/her badge to the Main Gate Badge Clerk. Final clearance of a Contractor upon completion of a contract will depend in part upon accounting for all badges issued to employees during the performance of the contract. It should be recognized that security badges are Government property and any alteration or misuse of these badges may be prosecuted as a violation of Section 499, Title 18, U.S. Code.

(2) Non-Resident Contractors (employees with non-picture badges)

The Contractor's on-site manager shall comply with the Badge and Property Regulations (NASA Form C-421) a copy of which will be given the Contractor prior to the start of the contract. The Badge and Property Regulations are quoted below:

(i) Ensure that each company employee is in possession of NASA Form C-9975 prior to reporting to work for badging purposes. Employees not in possession of the above mentioned form will be delayed at the gate until such time as the company supervisor/foreman or his representative reports to the Main Gate with the appropriate paperwork for badging.

(ii) Report lost badges immediately.

(iii) Upon termination of duties, each employee's badge will be collected and returned to the Main Gate by the Contractor. Final clearance of a Contractor upon completion of a contract will depend in part upon the accounting for all badges issued to employees during the performance of the contract. It should be recognized that security badges are Government property and any alteration or misuse of these badges may be prosecuted as a violation of Section 499, Title 18, U.S. Code.

(b) NASA-owned Property

(1) The term "NASA-Owned Property" refers to all controlled (tagged) and non-tagged equipment, library property, security badges, computer passwords and other property furnished by the Government during the course of the contract.

(2) The Contractor shall ensure that all NASA-Owned property issued to its employees is returned and in satisfactory condition upon termination of an employee's duties. In cases where accountability for the property is transferred from one employee to another, the NASA Equipment Management System (NEMS) Control office of the Logistics Management Division must be notified. At the completion of the Government contract, all property will be returned, and the contract value will be adjusted for any property not accounted for.

(3) When access to Federal computer systems has been granted, the Contractor shall ensure that its employees comply with the clause of the contract entitled "SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION RESOURCES (NFS 1852.204-76)".

(c) Emergencies

(1) The Contractor shall ensure that its employees are informed that Emergency, Fire, Medical, Safety, and Security assistance can be summoned by Dialing "911" on the Center's PABX telephone system. Emergencies are defined as incidents involving serious personal injury or damage that causes a possible hazardous condition, or any incidents that require immediate attention of the Plant Protection Department or Security. All other medical treatment is the responsibility of the Contractor.

(2) For incidents not classified as an emergency, contractor personnel shall be instructed to immediately notify the Contracting Officer's Technical Representative (COTR) (rather than dialing "911") in the event of an accident involving either personal injury or damage to property whether public or private, including damage to motor vehicles. They shall cooperate fully with the Government Accident Investigator and the Center Accident Investigation Board. This cooperation shall include interviews at the accident site and/or at a Board meeting.

(3) The Chairman of the appropriate Accident Investigation Board will notify the Contractor through the COTR as to the date and time and location of the Board meeting. The Board meetings will be held between the hours of 8:15 a.m. and 4:45 p.m. regular work days Monday through Friday.

(4) For Contractor duties where continuous manning of posts is mandatory during a work shift, the Contractor shall provide substitute personnel as required for manning these posts during the meeting of the Accident Investigation Boards.

(d) Traffic

(1) The Contractor agrees to comply, and agrees to require that all of its personnel will comply with all posted traffic signs, signals and instructions of personnel assigned for traffic control and parking purposes and with the provisions of NPD 1600.2 and NHB 1620.1 incorporated herein by reference and made a part hereof.

(2) The Government reserves the right to bar from the Glenn Research Center any Contractor employee who has failed to comply with such signs, signals, instructions and the provisions of NPD 1600.2 and NHB 1620.1. The period of the bar shall be as determined appropriate by the Contracting Officer subject to the provisions of NPD 1600.2 and NHB 1620.1. The Contracting Officer

will notify the Contractor in writing, setting forth the name(s) of the affected employees(s) and the time period(s) of the bar(s). No action by the Government in barring any Contractor employee from the Glenn Research Center shall be the basis for any claim whatever by the Contractor under this contract, nor shall it excuse the Contractor from complying with any provision of this contract.

(e) On-site Standards of Conduct

(1) The Contractor's entry onto the Center shall be pursuant to fulfilling its contractual obligations, and any related activities thereto. Contractor personnel gaining access to Glenn facilities are required to certify that they meet the minimum ethical standards for entry onto a Government facility. Falsification of this certification could lead to criminal prosecution.

(2) The Contractor agrees to comply, and agrees to require that all of its personnel will comply with all applicable Federal and State statutes and regulations, NASA policy and guidance documents, Glenn policy and guidance documents, and other regulations pertaining to personal conduct while on-site. Any conduct prejudicial to the efficient operation of the Center shall be cause for removal from the Center.

(f) Prohibition of Firearms

Firearms or weapons of any kind are strictly prohibited at the Glenn Research Center.

(g) Security Incidents

Theft of Property, Bomb threats, malicious damage and any other threat or violent situations shall be immediately reported to the Security Office.

(h) Property Passes

A Contractor Property Pass (NASA Form C-702) is required for the removal of all Contractor owned property and equipment and must be presented to the gate guard upon exit. This form can be obtained from the COTR (or designee) or the Glenn employee responsible for the Contractor's presence at the Center. This form must contain a complete description of the material/equipment being removed and should be signed by the authorized Government employee. Material relating to a specific contract or purchase order must be identified by insertion of the appropriate contract/purchase order number on the pass by the COTR or designee.

(i) After-hour Access

During normal working hours, 7:00 a.m. to 5:30 p.m. Monday through Friday, the guards at the gates will permit your entrance and departure. At any other time (other than normal hours), advance clearance is required, and may be obtained through the Glenn/Plum Brook COTR who will then make the request to the Main Gate Sergeant PABX 3-2204 at Glenn and 3-3221 at Plum Brook. After-hour clearances as approved by the COTR are certification to the guards as authority for admittance of a contractor during off hours, including Saturdays, Sundays, and Holidays.

(j) Contractor Identification

To avoid situations whereby the actions of onsite contractor employees can be construed as that of Government officials, the onsite contractor shall take the following actions:

(1) Insure that employees properly display their badge at all times.

(2) Institute a policy whereby employees who, in their normal course of duties, answer telephone inquiries, participate in meetings with Government and other contractor personnel or deal with the general public appropriately identify themselves so their actions cannot be construed as that of Government officials.

(3) Institute a policy whereby business correspondence, including emails and memoranda, includes the name of the company in the signature line. Use company letterhead for internal company matters and letters/memos signed by company personnel.

(4) For onsite office space primarily occupied by company personnel, clearly indicate on the exterior of the office space the company name.

H.6 WAGE DETERMINATION (GRC 52.222-90) (JAN 1987)

With reference to Paragraph (c) of the clause entitled "Service Contract Act of 1965", the U.S. Department of Labor has not yet made a Wage Determination. It will either be incorporated at a later date, or in the absence of its incorporation, all economic provisions, including all prospective increases, of the current Collective Bargaining Agreements (Attachments J-H6.1 and J-H6.2) and the provisions of Paragraph (e) of said clause ("Minimum Wage") shall apply.

H.7 ORDERING PROCEDURE

(a) Only the Contracting Officer may issue Delivery Orders to the contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in

performance of Delivery Orders and Delivery Order modifications issued in accordance with this clause.

(b) Prior to issuing a Delivery Order, the Contracting Officer will provide the Contractor with the following data:

- (1) A functional description of the work identifying the objectives or results desired from the contemplated Delivery Order.
- (2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.
- (3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.

(c) Within ten (1) business days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request. The proposed price for each Delivery Order shall be determined based on the contractor's estimated scope of work and shall be developed as follows:

- (1) estimated direct labor hours shall be itemized by labor category, using only those categories itemized in Clause B.3.
- (2) the estimated hours shall be multiplied by the hourly rates specified in Clause B.3 or lower
- (3) estimated material or equipment costs shall be supported by current catalog prices or at least 2 written quotes
- (4) material or equipment costs shall be increased by the burden rates specified in Clause B.3
- (5) no additional mark-up or burden for overhead or profit shall be applied to the labor or material costs determined in accordance with the above pricing procedure
- (6) no mark-up or burden for overhead or profit shall be applied to proposed subcontract costs

(d) After review and any necessary discussions, the Contracting Officer may issue a Delivery Order to the Contractor containing, as a minimum, the following:

- (1) Date of the order;
- (2) Contract number and order number;
- (3) Functional description of the work identifying the objectives or results desired from the Delivery Order, including special instructions or other information necessary for performance of the task;
- (4) Performance standards, and where appropriate, quality assurance standards;
- (5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable;
- (6) Any other resources (travel, materials, equipment, facilities, etc.) authorized;

(7) Delivery/performance schedule including start and end dates;
and

(8) If contract funding is by individual Delivery Order,
accounting and appropriation data.

(e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within three (3) business days after receipt of the Delivery Order.

(f) If time constraints do not permit issuance of a fully defined Delivery Order in accordance with the procedures described in paragraphs (a) through (d), a Delivery Order which includes a ceiling price may be issued.

(g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the Delivery Order and the Contractor's approved task plan, the Delivery Order shall prevail.

H.8 BASIS FOR PRICE ADJUSTMENT

In the event the Contractor submits a claims for price adjustment under the terms of clause 52.222-44, "FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT-PRICE ADJUSTMENT," the following are the total hours for each job category that shall be used as the basis for determining the amount of the equitable adjustment:

Labor Category	Annual Straight-Time Hours	Annual Overtime Hours @ 1 ½ X	Annual Overtime Hours @ 2X
Maintenance Trades Journeyman			
Maintenance Trades Helper			
High-Voltage Electrician Apprentice			
High-Voltage Electrician Journeyman			
Stationery Engineer			
Stationery Engineer/Mechanical/Control			
Steam Plant Maintenance			
Steam Plant Helper			
Grounds Maintenance Laborer			
Heavy Equipment Operator			
Grounds Maintenance Lead			

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1. LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	DEC 2001	DEFINITIONS
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	JUL 1995	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	JUN 1997	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER
52.209-6	JUL 1995	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.215-2	JUN 1999	AUDIT AND RECORDS--NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT
52.216-18	OCT 1995	ORDERING Insert "the beginning" through "the end of the contract period" in paragraph (a).
52.216-19	OCT 1995	ORDER LIMITATIONS Insert "\$500", "\$250,000", "\$250,000", "N/A" and "10 calendar days" in paragraphs (a), (b) (1), (b) (2), (b) (3) and (d), respectively.
52.216-22	OCT 1995	INDEFINITE QUANTITY Insert "30 days after the end of the contract period" in paragraph (d).
52.217-8	NOV 1999	OPTION TO EXTEND SERVICES
52.219-8	OCT 2000	UTILIZATION OF SMALL BUSINESS CONCERNS

52.219-14	DEC 1996	LIMITATION ON SUBCONTRACTING
52.222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-4	SEP 2000	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	APR 2002	EQUAL OPPORTUNITY
52.222-35	DEC 2001	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-36	JUN 1998	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	DEC 2001	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS
52.222-41	MAY 1989	SERVICE CONTRACT ACT OF 1965, AS AMENDED
52.222-42	MAY 1989	STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES
52.222-44	FEB 2002	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT--PRICE ADJUSTMENT
52.223-4	OCT 1997	RECOVERED MATERIAL CERTIFICATION
52.223-9	AUG 2000	ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED PRODUCTS
52.223-10	AUG 2000	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.227-2	AUG 1996	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.228-5	JAN 1997	INSURANCE--WORK ON A GOVERNMENT INSTALLATION
52.228-7	MAR 1996	INSURANCE--LIABILITY TO THIRD PERSONS
52.229-3	JAN 1991	FEDERAL, STATE, AND LOCAL TAXES
52.232-1	APR 1984	PAYMENTS
52.232-8	FEB 2002	DISCOUNTS FOR PROMPT PAYMENT
52.232-11	APR 1984	EXTRAS
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	FEB 2002	PROMPT PAYMENT
52.233-1	JUL 2002	DISPUTES (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.242-13	JUL 1995	BANKRUPTCY
52.243-1	AUG 1987	CHANGES--FIXED PRICE (ALTERNATE I) (APR 1984)
52.243-3	SEP 2000	CHANGES--TIME-AND-MATERIALS OR LABOR- HOURS
52.245-2	DEC 1989	GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)
52.246-25	FEB 1997	LIMITATION OF LIABILITY-- SERVICES

52.249-2	SEP 1996	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)
52.249-8	APR 1984	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)
52.249-14	APR 1984	EXCUSABLE DELAYS

II. NASA FAR SUPPLEMENT (48 CFR CHAPTER 18) CLAUSES

CLAUSE NUMBER	DATE	TITLE
1852.203-70	JUN 2001	DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS
1852.204-76	JUL 2002	SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES Insert "within 10 calendar days" in paragraph (c).
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESSES
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.243-71	MAR 1997	SHARED SAVINGS

I.2 CLAUSES INCORPORATED BY REFERENCE (FAR 52.252-2)
(FEB 1998)

This contract 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):

<http://www.arnet.gov/far/>
<http://www.hq.nasa.gov/office/procurement/regs/nfstoc.htm>

I.3 RIGHTS TO PROPOSAL DATA (TECHNICAL)
(FAR 52.227-23) (JUN 1987)

Except for data contained on pages _____, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the data contained in the proposal dated _____ upon which this contract is based.

I.4 OMBUDSMAN (NFS 1852.215-84) (JUN 2000) (ALTERNATE I)
(JUN 2000)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and contractors during the preaward and postaward phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the contracting officer, the Source Evaluation Board, or the selection official. Further, the

ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the contracting officer for resolution.

(b) If resolution cannot be made by the contracting officer, interested parties may contact the installation ombudsman,

Dr. Sunil Dutta
NASA Glenn Research Center
21000 Brookpark Road, Mail Stop 3-9
Cleveland, OH 44135-3191

Telephone: 216-433-8844
FAX: 216-433-8000
e-mail: Sunil.Dutta@lerc.nasa.gov

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA ombudsman, the Director of the Contract Management Division, at 202-358-0422, facsimile 202-358-3083, e-mail sthompson1@hq.nasa.gov. Please do not contact the ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the contracting officer or as specified elsewhere in this document.

(c) If this is a task or delivery order contract, the ombudsman shall review complaints from contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the contract.

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

J, 1 LIST OF ATTACHMENTS - NEGOTIATED (GRC 52.215-102) (MAY 2000)

The following documents are attached at the end of this solicitation/contract and made a part hereof:

J-B1.1 Estimated Annual Quantities of Recurring Services
J-C1.1 Glossary of Equipment Terms
J-C5.1 Buildings and Structures
J-C7.1 List of Directives, Instructions, Maps
J-C8.1 Life Safety Systems Listing
J-C8.2 Life Safety Preventive Maintenance (PM) Checklists
J-C9.1 Electrical Distribution Systems Listing
J-C9.2 Electrical Distribution Systems PM Checklists
J-C10.1 Communication Systems Listing
J-C11.1 Personnel and Material Handling Systems Listing
J-C11.1a Elevators
J-C11.1b Cranes
J-C11.2 Personnel & Material Handling Systems PM Checklists
J-C12.1 Surfaced Areas Listing
J-C12.2 Roads and Grounds Maps
J-C12.3 Grounds Inventory
J-C13.1 Buildings & Structures Listing
J-C13.2 Buildings & Structures Preventive Maintenance Checklists
J-C14.1 Heating Plant Equipment Listing
J-C14.2 Heating Plant PM Checklists
J-C15.1 HVAC, Refrigeration, & Energy Management Control Systems Equipment Listing
J-C15.2 HVAC, Refrigeration & Energy Management Control Systems PM Checklists
J-C16.1 Utility Distribution Systems & Components Listing
J-C16.2 Utility Distribution Systems PM Checklists
J-E3.1 Unit Prices
J-G4.1 Installation Accountable Property
J-H2.1 Contract Security Classification Specification (DD 254)
J-H6.1 Teamsters Local 416 Collective Bargaining Agreement
J-H6.2 IBEW Local 38 Collective Bargaining Agreement (NOTE TO OFFERORS: pages 52 through 55 are not missing - see page 48 for the prospective increases for April 28, 2003 and April 26, 2004)

- J-L12.1 Estimated Annual Hours for Recurring Requirements
- J-L12.2 Required Content of Safety and Health Plan
- J-L13.1 Historical Data - Trouble Calls
- J-L13.2 Historical Data - Minor Service Requests
- J-L13.3 Historical Data - IDIQ Requirements
- J-L13.4 Cooling Towers and Boilers Specifications
- J-L13.5 Examples of Completed Forms
- J-L13.6 Summary of Proposed Contract Prices
- J-L14.1 Past Performance Summary Table
- J-L14.2 Past Performance Questionnaire
- J-L14.3 Labor Relations Questionnaire