

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE K	PAGE OF 1	PAGES 11
2. AMENDMENT/MODIFICATION NO. <b>P00013</b>	3. EFFECTIVE DATE <b>26 Mar 03</b>	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (if applicable)	
ISSUED BY Debrae Supply Center Columbus 3990 East Broad St. P.O. Box 16704 Columbus, OH 43216-5010 Initiator: Donna Behrens, P.ILEX01 (614) 692-268/FAX: 693-1572 E-mail: Donna.Behrens@dscc.dla.mil	CODE SC0700	7. ADMINISTERED BY (if other than item 6) CODE		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) <b>WATEC Distribution Center 1570 Muzzys Road Urbana, Ohio 43078</b>		(X)	9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED (SEE ITEM 11)	
			10A. MODIFICATION OF CONTRACT/ORDER NO. <b>SP0750-02-D-7869</b>	
		X	10B. DATED (SEE ITEM 13) <b>8 January 2002</b>	
CODE <b>1W2Z5</b>	FACILITY CODE			

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers  is extended  is not extended.  
Offeror must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  
(a) By completing items 8 and 10 and returning      copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. **FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.** If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data (if required)  
AA 97X9430 5CC1.001 ZV130.02 ZV26.71 CAC230903115 S33181 JON 1W3STP - \$226,301.71

**13. THIS APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,  
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

14. A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify Authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM     

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF  
X Far 43.103(A)(3) - BILATERAL MODIFICATION, MUTUAL AGREEMENT

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor  is not,  is required to sign this document and return   1   copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

- This modification is issued to incorporate the (attached 9 pages) Surge & Sustainment Investment Plan (S&S Investment Plan) effective the date of the modification.
- Funds in the amount of \$226,301.71 are hereby obligated for CLIN 6002 S&S Investment Plan (see Block 12). The S&S Investment Plan incorporates herein \$224,105.71 for Government spare parts inventory, and an additional \$2,196.00 for first year warehousing fees/costs. The S&S Investment Plan may be extended for additional yearly periods by the contracting officer. We will be reserving the right to add surge NSNs to this list as necessary (at an additional cost) (including any NSNs not reflected in the initial plan).
- The contractor will rotate the surge nsn parts with peacetime demands as well as wartime and reconstitute the stockpile anytime it is depleted for "surges" in demand. All the parts that are a part of the surge shall be rotated within a minimum of 24 months.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remain unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) <b>JANICE WILLIAMS, Contracting Officer</b>	15a. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <b>DONNA BEHRENS</b>
15B. CONTRACTOR/OFFEROR <i>(Signature of person authorized to sign)</i> <b>Janice Williams</b>	15C. DATE SIGNED <b>3/26/03</b>
15D. UNITED STATES OF AMERICA BY <i>(Signature of Contracting Officer)</i> <b>Donna Behrens</b>	15E. DATE SIGNED <b>26 Mar 03</b>

<b>CONTINUATION SHEET</b>	<b>REFERENCE NO. OF DOCUMENT BEING CONTINUED</b> SP0750-02-D-7869/P00013	<b>PAGE</b> 2 OF 11
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4. The surge requirement will be ordered via the issuance of one or more delivery orders and will state "surge requirement" on the order. As orders are placed the contractor will replace the surge quantity .
5. Orders issued against the surge stock are to be shipped within 3 working days.
6. Items 23 (5330-01-326-2622) and 44 (5307-01-302-4694) have been removed from the surge plan.
7. Paragraph 13 of the S&S Plan delete: "226,461.86" and add "224,105.71".
8. All other terms and conditions remain unchanged.

## Appendix B. Recommended Surge Investment by Item.

Visit us on the World Wide Web at [www.watecinc.com](http://www.watecinc.com)**WATEC, Incorporated**3081 Players Drive, Jonesboro, GA 30236  
Telephone (770) 210-2829 Facsimile (770) 210-9487

Surge and Sustainment Plan Addendum  
Reverse Osmosis Initiative  
SPO750-02-D-7869  
19 March 2003

1. PURPOSE. The purpose of this Addendum is to answer DLA's 18 March 2003 letter containing proposed revisions to the WATEC 3 March 2003 Surge and Sustainment Plan.

2. REVISIONS.

Category 1: Deleted Items. Item 4 should not have been listed as deleted. Item 8 has been deleted and should have been listed instead.

Category 2: Items with Surge Covered Entirely by Current DLA Stock. Items 18, 43, and 92 were identified by DLA as having insufficient stock to be considered in this category. All three items were analyzed for procurement factors and it has been determined that none of the three require surge investment at this time due to reasonable lead times and significant DLA stock. In addition, items 17, 133, and 152 should be deleted entirely from the 6000-Series CLIN surge list.

Category 3: Items with Surge Requiring an Investment in Surge Stock. Item 25 was identified as representing 75% of the total investment cost and vendor lead-time information was requested. The lead-time quoted by the vendor for this item is 120 days. WATEC has procured this item in the past and although shorter lead times have been experienced, a lead-time of 125 days was used for the investment calculation as this was the longest (and therefore most conservative) lead-time experienced to date. Given the unique and mission-essential nature of this part, WATEC maintains its position that significant surge stock investment is necessary for this item.

3. RECOMMENDATIONS. As noted in the original plan and in the DLA response, it is crucial that DLA stock levels are monitored closely and additional surge stock investment is made when necessary to replace depleted DLA stocks. This process will ensure rotation of stock and constant surge demand support. In addition, we would like to stress the importance of expanding surge stock investment to include the list of additional items presented in the original surge plan. These items were identified because of their mission-critical nature, highly variable demand, or exceptionally long lead times and all require evaluation for surge investment.



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Surge and Sustainment Plan  
Reverse Osmosis Initiative  
SPO750-02-D-7869  
3 March 2003

1. **PURPOSE.** The purpose of this plan is to outline WATEC, Inc. and DLA's ability to meet previously defined surge and sustainment requirements for specified items in support of a broad spectrum of possible contingencies and to identify any investments necessary to fully support these conditions.
2. **GENERAL.** Under this contract WATEC, Inc. is responsible for providing worldwide support for the 3,000 gallon per hour (GPH) and 600 GPH Reverse Osmosis Water Purification Units (ROWPUs) including parts, maintenance, training, troubleshooting and repair. Surge and sustainment capability as defined in this contract refers to WATEC's ability to supply a pre-defined surge volume for the 154 6000-Series CLINs listed in Appendix C of the subject contract. All of these items are Commercial Off the Shelf (COTS) products and since WATEC is not the primary manufacturer of these items, surge and sustainment support is treated on an end-item basis and does not address the supply and stockpiling of raw materials for individual items.
3. **SURGE VOLUME ANALYSIS.** The total six-month surge requirements as defined in the subject contract range from a quantity of 3 to a quantity of 1,106 for each of the 154 NSNs. When compared to DLA projected annual demands, this range varies from less than half to over 900 times the peacetime demand depending on the NSN. The factors used to determine which items would be included in this list are not known, and upon review of this plan, modification of this list may be deemed necessary.
4. **INVENTORY LEVELS.** To effectively manage each surge NSN on an end-item basis, only complete products ready for shipment and use are considered in inventory. Up to two inventory locations are considered in evaluating current capability for each NSN: the quantity on hand in DLA stockpiles, and the availability of stock at vendors for procurement.
  - A. **DLA Stock.** A number of the 6000-Series CLINs currently remain in DLA control as DLA continues to draw down extensive stockpiles of these items. In some cases, current DLA stock greatly exceeds the total six-month surge demand as identified in the contract.
  - B. **Vendor Stock Availability.** Order lead time estimates based on vendor quotes and recent order experience were used to predict how quickly additional stock could be

## Surge and Sustainment Plan, Reverse Osmosis Initiative, SPO750-02-D7869

obtained in the event of a surge scenario. In many cases multiple order history existed and the longest lead time previously experienced was used in order to provide the greatest margin of safety.

5. PRODUCTION CAPABILITY. The 154 6000-Series CLINs selected for this surge plan are made up of an assortment of COTS electrical, plumbing, and hardware components for the 3,000 and 600-gph ROWPUs. In many cases, these are moderate to high volume commercial parts and the military surge requirement does not represent a significant fraction of the normal total periodic volume. For these items, vendor stock levels and delivery times are the only constraints. A few of the more specialized items are not generally stocked by vendors in significant quantity. Efforts have been made to identify these items, determine actual production lead time, and to arrive at minimum necessary stock levels necessary to bridge the gap between initial surge demand and the delivery of newly produced parts.

## 6. INFORMATION TECHNOLOGY.

A. WATEC Systems. WATEC, Inc. utilizes a number of computer and web-based systems to track and internally share critical information. These systems include a commercial web-based database that tracks inventory (on-hand, due in, reorder points, etc.), procurement history, order tracking, and order history. WATEC also has designed a proprietary web-based database for procurement purchase order, receipt, quality, and inventory tracking. Two dedicated DSL lines running at 940/160 kbps serve the warehouse. Dial up service is available in case of loss of DSL availability. All systems are protected by the latest in anti-virus technology as well as a comprehensive firewall. None of these WATEC systems have had any reported down-time since contract inception. These systems are all capable of handling many times normal volume and surge demand is not expected to adversely affect performance. Local copies of on-line data exist and could be utilized in the event of system outages.

B. Government Systems. Government automation systems are used extensively as well including DPMS, SAMMS, DLIS (LOGRUN), Webcats, PC JEDMICS, and ASSIST. Much of the data gathered from these systems can be obtained from alternate sources in the event of a short-term system outage, but long-term outages (days) would likely reduce overall contract performance temporarily. Outages of these systems are out of contractor control.

## 7. DELIVERY.

A. Transportation Methods. Commercial carriers including United Parcel Service, Federal Express, ABF, Yellow Freight, and the United States Postal Service make deliveries from vendors and from the warehouse distribution center. Transportation is not anticipated to become a limiting factor during surge periods.

B. Points of Contact. Current points of contact for these carriers are listed in Table 1 below.

Surge and Sustainment Plan, Reverse Osmosis Initiative, SPO750-02-D7869

Table 1. Outbound Commercial Carrier Contact Information

<b>Carrier</b>	<b>Point of Contact</b>	<b>Telephone Number</b>
ABF	Ron Carmack	(800) 423-0456
Federal Express	Craig Elliot	(800) 448-9961
United Parcel Service	Vance Coulter	(614) 278-3003 ext. 8009
United Postal Service		(937) 653-3150

C. Customer Information. Delivery addresses are the DODAACs provided on every order. WATEC has access to SAMMS, DPMS, and web sites that can provide the addresses for each DODAAC. In addition, the order-tracking database can be used to extract customer information if necessary.

8. ITEM MANAGEMENT. Incorporated contract clause I136 (Limitations on Use of Surge and Sustainment Investments) states that additional investment may not be made when the level of DLA assets as well as commercial inventories and production capabilities in the contractor's supplier base are sufficient to meet both peacetime and surge and sustainment requirements for an item. For the purposes of this plan, the 6000-Series CLINs are broken down into three categories based on how they fit into this clause. A complete list of CLINs can be found in Attachment C of the subject contract. The three categories are described here.

A. Deleted items. Item numbers 4, 46, 54, 56, and 147 have been deleted from this contract and were not evaluated.

B. DLA Stock. DLA inventory for all CLINs was evaluated for ability to meet total surge demand. Table 2 contains 29 items that can be fully supported in this manner solely by existing DLA stock. As DLA stock is depleted these items will need to be reevaluated, but in many cases existing DLA stock is projected to last well beyond the end of this contract.

## Surge and Sustainment Plan, Reverse Osmosis Initiative, SPO750-02-D7869

Table 2. Items With Surge Covered Entirely by Current DLA Stock

Item	NSN	NOMENCLATURE	Total Qty	30 Day Qty	60 Day Qty	90 Day Qty	120 Day Qty	150 Day Qty	180 Day Qty	Feb-03 DLA Stock On Hand
1	4730011373067	ADAPTER,STRAIGHT,PI	1,106	2	0	276	276	276	276	2787
10	4730004551139	ELBOW,PIPE TO HOSE	93	1	0	23	23	23	23	584
12	4730002440433	TEE,PIPE	92	0	0	23	23	23	23	1221
14	4730011431393	ADAPTER,STRAIGHT,PI	92	0	0	23	23	23	23	345
17	4720011465896	HOSE,NONMETALLIC	56	10	10	9	9	9	9	352
18	5975013557891	STUFFING TUBE	55	17	19	19	0	0	0	98
36	5331013015993	O-RING	21	21	0	0	0	0	0	467
43	4730013506290	CAP,QUICK DISCONN	19	5	7	7	0	0	0	28
52	4730013509028	ELBOW,PIPE TO TUBE	14	4	5	5	0	0	0	33
60	3110013217994	BEARING,BALL,ANNULA	12	3	5	4	0	0	0	99
66	5930013488590	SWITCH,PUSH	12	3	5	4	0	0	0	16
68	5930013501868	SWITCH,ROTARY	12	3	5	4	0	0	0	16
72	4730012404263	NIPPLE,PIPE	10	3	4	3	0	0	0	15
83	4320013489529	DEFLECTOR,DIRT AND	9	4	2	3	0	0	0	26
92	4720013564562	HOSE ASSEMBLY,NONME	7	2	3	2	0	0	0	15
94	4730013497814	COUPLING HALF,QUICK	7	2	3	2	0	0	0	13
100	5330013517681	GASKET	7	3	2	2	0	0	0	296
101	5330013517682	GASKET	7	3	2	2	0	0	0	297
102	5905013517301	RESISTOR ASSEMBLY	7	2	3	2	0	0	0	12
130	4730013509030	ELBOW,PIPE TO TUBE	5	1	1	3	0	0	0	11
132	4730013550438	ELBOW,PIPE	5	1	1	3	0	0	0	8
133	4730013571920	CROSS,PIPE	5	1	1	1	1	1	0	29
134	5315013505962	KEY,MACHINE	5	1	1	3	0	0	0	24
137	5925013490855	CIRCUIT BREAKER	5	1	1	3	0	0	0	8
140	5925013495602	CIRCUIT BREAKER	5	1	1	3	0	0	0	10
144	4730013487923	NIPPLE,PIPE	4	2	0	2	0	0	0	8
148	3010000855290	WRIST PIN,DRIVE UNI	3	3	0	0	0	0	0	49
151	4730013499893	ADAPTER,STRAIGHT,PI	3	1	1	1	0	0	0	8
152	5310011434198	NUT,PLAIN,WING	3	1	1	1	0	0	0	40

C. Stock/Vendor Inventory. WATEC, Inc. currently manages peacetime supply for many of these items and maintains working stock in the WATEC Distribution Center in Urbana, Ohio. Since these stock levels are not intended for surge demand they are not included in this analysis and do not affect recommended surge stock levels<sup>1</sup>. Table A-1 in Appendix A contains the complete list of 6000-Series CLINs for which WATEC recommends an investment for surge stock. An explanation of how this investment was calculated can be found in section 10.

9. UNMEETABLE SURGE REQUIREMENTS. None of the 6000-Series CLINs present insurmountable surge or sustainment requirements.

10. REQUIRED INVESTMENT. Every effort has been made to identify sources of supply that will be able to meet surge requirements without surge stocking support. In order to provide immediate support for all 6000-Series CLINs in a surge scenario, however, the quantity identified in the contract surge scenario as necessary for the first 30 days (or longer for items with extended lead times) must be purchased and warehoused in a surge stockpile. These items are listed in Appendix A along with the proposed purchase cost investment necessary to guarantee complete surge support for the proposed scenario.

<sup>1</sup> This assumption was discussed with a DLA representative and recommended for use.

Surge and Sustainment Plan, Reverse Osmosis Initiative, SPO750-02-D7869

A. Purchase Cost Investment. The purchase cost investment for these items was calculated by projecting the gap between surge requirements and current DLA stock and vendor supply capability. This gap represents the amount of pre-positioned stock necessary to ensure complete support in the contract surge scenario. Lead time projections indicate WATEC will be able to procure most of the surge items within 30 days of surge, so stock is only needed for the 30-day surge requirement (or less, if DLA has stock on hand). Only the longer lead time items require stock beyond this level.

B. Warehousing Investment. Incorporated clause I136 dictates that surge and sustainment investments may not be accessed for any purpose other than to support major theater warfare or smaller scale contingencies. In order to comply with this clause, items purchased for surge support will be kept physically separated from working stock at the WATEC Distribution Center. Costs associated with this warehousing will be \$6 per month per square foot.

11. ADDITIONAL SURGE ITEM RECOMMENDATIONS. As mentioned above, the factors used to identify items for inclusion in the 6000-Series CLINs are not known. The projected surge quantities for these items vary from less than peacetime demand to orders of magnitude greater. Some of the items on this list are clearly mission-critical components, while others have not been manufactured in decades and may not be high-demand items at all. WATEC has included a list of items for recommended addition to the 6000-Series list and incorporation into the Surge and Sustainment plan. These items were identified because of their mission-critical nature, highly variable demand, exceptionally long lead times, or very high dollar value.

A. Mission Critical Items. While every item on this list is an essential component at some level, some items have been designated Critical or Highly Critical as these are major components capable of bringing water purification or distribution operations to an immediate and irreparable halt if immediate replacements are not available.

B. Highly Variable Demand. The greatest challenge presented in supplying parts for this customer base is highly variable demand. While this is expected, on a few items the demand is so varied that it is not practically feasible to keep enough working stock on hand to meet *any* potential surge demands. Some of these items have been highlighted on this list as excellent candidates for surge investment.

C. Long Lead Time. Some complex or military-specific items are impossible to procure in a short period of time, eliminating the possibility for quick reaction to surges in demand. The best way to ensure these items are supplied under surge conditions is to invest in surge stock.

D. Very High Dollar Value. A few critical and variable demand items have been further highlighted as very high dollar value items. While dollar value in itself does not create a mandate for surge stocks, it compounds the problem of demand volatility when economic necessity prevents overly conservative (high) stocking levels. These critical parts make a strong argument for government investment in surge stock when it does

## Surge and Sustainment Plan, Reverse Osmosis Initiative, SPO750-02-D7869

not make economic sense for the contractor to maintain stocks above peacetime demand levels.

## 12. LIMITATIONS.

A. Forecasting Assumptions. No amount of forecasting can protect against every possible demand scenario. The investment suggestions outlined in this plan are designed to ensure complete demand support for the surge scenario given in the subject contract. If an actual surge is more severe than anticipated in this scenario, temporary shortages may result. Regardless of the magnitude or duration of an actual surge, however, any investments made to prepare for the given scenario would mitigate shortages and provide a very real and measurable benefit. As discussed earlier in this report, these recommendations depend on a number of external factors including existing DLA stocks and vendor response times. While conservative numbers were used to provide some latitude, should either of these variables change substantially, performance in a maximum surge situation may be affected.

B. Scope. Further, the support provided by this plan is limited to the 6000-series CLINs. The items listed in Appendix B represent additional items that WATEC believes should be included in a similar plan and should be the subject of government investment as soon as practicably possible.

C. Duration. As inventories are dynamic in nature, and the investment numbers in this plan depend on current DLA stock, this plan can only provide a snapshot view of what is needed. For this plan to remain effective, it should be updated at least semi-annually. Similarly, the investment prices and warehousing costs are also time-sensitive and will require re-evaluation after 180 days.

13. CONCLUSION. This plan outlines a government investment strategy designed to provide the maximum support during surges in demand at the lowest possible cost. The total purchase cost investment for 6000-Series CLINs necessary to provide support for the projected scenario is \$226,461.86. An additional monthly warehousing fee of \$183 would be required to support this stock. While not an inconsequential dollar amount, this investment coupled with a similar investment in the recommended surge items listed in Appendix B will prove to be inexpensive insurance and will pay for itself many times over in improved response and military readiness should an actual surge scenario develop.

14. FURTHER ASSISTANCE. If you have any questions or require additional assistance regarding this plan, please contact Kevin Schwall, WATEC, Inc., by telephone at (352) 375-1037 or via e-mail, [kschwall@watecinc.com](mailto:kschwall@watecinc.com).

Appendix A. Recommended Surge Investment by Item.

Item	NSN	NOMENCLATURE	Total Quantity	30- Day Quant	60- Day Quant	90- Day Quant	120- Day Quant	150- Day Quant	180- Day Quant	DLA Stock (2/03)	Surge Stock Needed	Investment Cost
5	4730011863778	COUPLING,CLAMP,PIPE	310	1	0	78	77	77	77	0	1	\$8.26
6	5330013512757	GASKET	185	55	64	66	0	0	0	0	119	\$7,668.36
7	4730010866157	CAP,QUICK DISCONN	164	49	57	58	0	0	0	0	49	\$809.48
15	5330013495542	GASKET	85	24	29	32	0	0	0	5	19	\$2,762.60
16	5330013516364	GASKET	76	23	26	27	0	0	0	0	23	\$884.12
19	4820013512948	VALVE,BALL	53	16	18	19	0	0	0	0	16	\$4,098.56
20	4820013513432	VALVE,BALL	40	13	12	15	0	0	0	0	13	\$483.73
21	4820013493816	VALVE,PLUG	39	11	13	15	0	0	0	0	11	\$613.69
22	3120013158783	BUSHING,SLEEVE	36	36	0	0	0	0	0	22	14	\$52.50
23	5330013262622	SEAL,CERAMIC	33	33	0	0	0	0	0	5	28	\$2,348.64
24	4730004109530	COUPLING HALF,QUICK	32	9	12	11	0	0	0	0	9	\$153.36
25	4820013264409	DIAPHRAGM ASSY	32	0	0	8	8	8	8	0	24	\$177,411.12
26	4730013235135	STRAINER,SEDIMENT	26	8	10	8	0	0	0	0	8	\$42.48
28	5930013485821	SWITCH,ROTARY	25	8	9	8	0	0	0	2	8	\$392.16
29	4820013267879	VALVE,CHECK	24	8	8	8	0	0	0	0	8	\$2,813.60
30	5330013498929	RETAINER,PACKING	24	6	9	9	0	0	0	0	6	\$242.64
31	5330013498930	PACKING,PREFORMED	24	6	9	9	0	0	0	0	6	\$76.02
32	4730013476073	PLUG,QUICK DISCONN	23	7	8	8	0	0	0	0	7	\$159.39
33	4730013514007	NIPPLE,PIPE	21	8	6	7	0	0	0	0	8	\$57.60
35	5310013540077	NUT,PLAIN,HEXAGON	21	6	8	7	0	0	0	4	2	\$32.92
37	5930013487197	SWITCH,PUSH	21	6	8	7	0	0	0	0	14	\$1,542.66
40	5940013485462	TERMINAL,QUICK DISC	21	6	8	7	0	0	0	0	6	\$47.04
41	5940013486660	TERMINAL BOARD	21	6	8	7	0	0	0	0	6	\$8.64
44	5307013024694	STUD,PLAIN	19	1	2	3	4	5	4	0	1	\$7.52
45	4010013531476	WIRE ROPE ASSEMBLY,	18	5	6	7	0	0	0	4	1	\$74.30
47	5930013488592	SWITCH,PUSH	18	5	6	7	0	0	0	3	2	\$400.80
48	5940013492716	TERMINAL PLATE,END	18	5	6	7	0	0	0	0	5	\$3.15
50	3030013518189	BELT,V	14	4	5	5	0	0	0	0	4	\$119.08
51	4730013506205	ELBOW,PIPE TO TUBE	14	4	5	5	0	0	0	0	4	\$114.96
53	4810013501518	VALVE,SOLENOID	14	3	6	5	0	0	0	2	1	\$110.64
55	5310013500558	NUT,PLAIN,ROUND	14	4	5	5	0	0	0	0	4	\$17.36
57	5315013495783	PIN,STRAIGHT,HEADLE	14	4	5	5	0	0	0	0	4	\$2.26
59	5930013488591	SWITCH,PUSH	14	4	5	5	0	0	0	0	4	\$178.36
62	4720013497777	HOSE ASSEMBLY,NONME	12	3	5	4	0	0	0	0	3	\$1,659.12
64	5330013517667	GASKET	12	3	5	4	0	0	0	0	3	\$32.58
65	5340013555203	CLAMP,LOOP	12	3	5	4	0	0	0	0	3	\$25.38
70	5975013520286	STUFFING TUBE	12	4	3	5	0	0	0	0	3	\$92.88
73	4730013507441	ELBOW,PIPE	10	3	4	3	0	0	0	3	7	\$189.28
74	4730013515906	COUPLING HALF,QUICK	10	3	4	3	0	0	0	0	3	\$164.88
75	4810013515925	PARTS KIT,VALVE	10	3	4	3	0	0	0	0	3	\$172.86

Appendix A. Recommended Surge Investment by Item. (Continued)

Item	NSN	NOMENCLATURE	Total Quantity	30-Day Quant	60-Day Quant	90-Day Quant	120-Day Quant	150-Day Quant	180-Day Quant	DLA Stock (2/03)	Surge Stock Needed	Investment Cost
76	4820013501538	PARTS,KIT,VALVE	10	3	4	3	0	0	0	0	10	\$2,922.50
78	5330013495604	GASKET	10	3	4	3	0	0	0	2	1	\$30.56
79	5330013516363	GASKET	10	3	4	3	0	0	0	0	3	\$287.13
82	5970013484762	INSULATION SLEEVING	10	3	4	3	0	0	0	0	7	\$476.21
84	5310013496177	WASHER,SHOULDERED	9	4	2	3	0	0	0	0	4	\$5.79
85	4010014466428	CHAIN,WELDED	8	4	2	2	0	0	0	0	6	\$1,150.22
86	3120013522024	BEARING,SLEEVE	7	2	3	2	0	0	0	0	2	\$61.40
87	4720013493902	HOSE ASSEMBLY,NONME	7	2	3	2	0	0	0	0	5	\$356.40
88	4720013493904	HOSE ASSEMBLY,NONME	7	2	3	2	0	0	0	6	\$986.05	
89	4720013497312	HOSE ASSEMBLY,NONME	7	2	3	2	0	0	0	0	2	\$312.50
90	4720013497313	HOSE ASSEMBLY,NONME	7	2	3	2	0	0	0	5	\$142.56	
91	4720013497314	HOSE ASSEMBLY,NONME	7	2	3	2	0	0	0	3	\$2,478.20	
93	4730008570866	COUPLING,PIPE	7	2	3	2	0	0	0	0	2	\$12.92
95	4730013507163	ELBOW,PIPE	7	2	3	2	0	0	0	0	2	\$20.52
96	4730013507737	COUPLING ASSEMBLY,T	7	2	3	2	0	0	0	0	2	\$64.36
97	4730013528964	ELBOW,PIPE	7	2	3	2	0	0	0	0	2	\$231.30
99	5325013500515	RING,RETAINING	7	2	3	2	0	0	0	0	2	\$17.66
104	5930013507668	SWITCH SUBASSEMBLY	7	2	3	2	0	0	0	2	3	\$781.56
105	5945013485783	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$91.20
106	5945013485784	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$292.41
108	5945013485786	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$309.19
110	5945013487143	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$751.00
111	5945013487144	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$658.84
116	5945013490893	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$308.85
117	5945013490894	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	1	1	\$279.62
119	5945013490896	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$411.31
120	5945013490897	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$310.08
121	5945013491771	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	1	1	\$588.02
122	5945013495445	RELAY,ELECTROMAGNET	7	2	3	2	0	0	0	0	2	\$395.40
124	6625013514899	INDICATOR,FAULT LOC	7	2	3	2	0	0	0	1	1	\$272.13
126	4720013491945	HOSE ASSEMBLY,NONME	5	1	1	3	0	0	0	0	1	\$449.85
127	4730012211471	STRAINER ELEMENT,SE	5	1	2	2	0	0	0	0	1	\$421.68
128	4730012330796	CAP,QUICK DISCONNEC	5	3	0	2	0	0	0	0	3	\$59.97
143	5950014231526	TRANSFORMER,POWER	5	1	1	3	0	0	0	3	2	\$3,312.80
145	4730013503756	NIPPLE,PIPE	4	2	0	2	0	0	0	1	1	\$26.72
146	4730013538496	COUPLING HALF,QUICK	4	2	0	2	0	0	0	0	2	\$136.08
149	4720013532957	TUBING,NONMETALLIC	3	1	0	2	0	0	0	0	1	\$1.64
150	4730013493866	TEE,PIPE	3	1	0	2	0	0	0	0	3	\$968.52
153	5331013517619	O-RING	3	1	1	1	0	0	0	0	1	\$3.74
TOTAL												
\$226,461.86												