

APPENDIX E-368 P

SAFETY LEVEL COSTS LISTING

1. PURPOSE

This appendix is applicable to chapter 56 and provides instructions for the manual review and analysis of the Safety Level Costs Listing, (appendix F-62). Information derived from this listing is used to determine future Backorder Formula for use in Requirements Management Policy Table 007, Variable Safety Level Table.

2. APPENDICES USED IN THIS PROCESS

- a. Appendix D-187, Safety Level Computation.
- b. Appendix F-62, Safety Level Costs Listing.
- c. Appendix F-82, Variable Safety Level Table 007.

3. RESPONSIBLE ORGANIZATIONAL ELEMENT

DSO.

4. PROCEDURES/INSTRUCTIONS

a. The F-62 listing is output quarterly following variable safety level computations for established replenishment demand items. The dollar value associated with Backorder Prime Formula I is the actual dollar value of safety stock which was allocated during the forecast just completed. Formula 2 through 6 represent alternative backorder levels and associated costs of safety stock investment. For analysis, prepare a graph with backorder levels on the ordinate and dollar values on the abscissa. Enter a point on the graph corresponding to each backorder/dollar value combination, and connect the six points with a smoothed line. The example on page E-368 P-2 shows the graph of the following data:

<u>FORMULA</u>	<u>BACKORDERS</u>	<u>\$VALUE</u>
1	36,000	41,743,452
2	23,000	55,872,233
3	30,000	47,343,652
4	40,000	38,658,685
5	45,000	35,388,268
6	51,000	32,042,805

b. The graph is used to analyze different investment options. In the example, management may determine that a safety stock investment of \$52,000,000 will be required to attain a backorder level of 26,000. Conversely, if available stock fund investment for safety stock should be reduced to \$36,000,000, a backorder level of 44,000 may be expected. At the present time, management has elected a backorder objective of 36,000, with an investment of \$41,473,452 in safety stock.

c. It must be emphasized that the backorder formula used in safety level computations are applicable only to those items assigned variable safety level, and that they will approximate actual center backorder levels only statistically and over an extended period of time. A correlation of Prime Backorder Formula and the actual backorder data of appendix F-82 A will be useful in developing detailed analyses of backorder trends.

