

CHAPTER 12

INDUSTRIAL PREPAREDNESS PROGRAM

12.-1. Introduction

a. A viable industrial base that can respond adequately to wartime demands must be maintained. Since the United States must be prepared to react in support of its worldwide treaty commitments, it may have to employ its general-purpose forces anywhere in the world against one or more nations under various circumstances. Planning for logistics support must consider such factors as the length and intensity of combat, the size of combat forces committed, the support required to be furnished to allies and the support that can be furnished by allies.

b. For high-intensity wars of short duration, it is necessary to have adequate supplies on hand to support the operation until its conclusion. Except for those items which are consumed in peacetime as well as wartime, the conversion of industrial capacity to production of military peculiar war equipment such as ammunition, weapons, and the like, could not be accomplished. Current planning for contingency operations such as involvement as part of the North Atlantic Treaty Organization (NATO) against the WARSAW Pact nations provides for pre-positioning of war reserve stocks to provide support until resupply from the Continental United States (CONUS) is established. Even the CONUS resupply support will come initially from prestocked war reserves. This will continue until wartime production equals wartime requirements.

c. In peacetime the logistics planners must determine what resources are required to support US peacetime national strategy and what is required to convert our industrial capacity to a wartime posture as quickly as possible. Several elements must be considered by these planners—initial allowances; basic and mission loads; combat essential items; length of pipeline overseas; over-sea storage objectives; transport capabilities; wartime consumption; wartime production; and status of the production base. The objective of this planning is to provide support to military operations on an indefinite basis once hostilities begin regardless of where US forces may deploy. Since it is not feasible or economical to have stockpiles of sup-

plies to support all possible conflicts, the military services must plan with industry to rapidly convert to needed wartime production. This is the basis for industrial preparedness planning (IPP).

12-2. Department of Defense (DOD) Program

a. The Secretary of Defense was assigned certain emergency preparedness functions under Executive Order 11490, 28 October 1969. To carry out his responsibilities, the Secretary of Defense in DOD Instruction (DODI) 4005.3 directed the publication of the DOD Industrial Preparedness Production Planning Manual (DOD 4005.3 M). This manual assigns functional responsibilities; establishes operational procedures for planning; and prescribes terms, DD forms, reporting procedures, and security standards for protection of plans.

b. DODI 4005.3 states as DOD policy that each DOD component is responsible for selection of items necessary for its particular IPP objectives. The DOD objectives for major weapons systems selection for planning is set at about 100 with each component limiting its selection of these systems to about 35. A further limit of about 2,000 items, including major weapons systems, is set for each DOD component. Items selected for planning constitute the Industrial Preparedness Planning List (IPPL). For each major weapons system selected, vertical planning (down through subcontractor) is mandatory. IPP is limited to end items or components essential to combat operational effectiveness, or the safety and survival of personnel and meeting at least one of the following criteria:

- (1) Long acquisition leadtime.
- (2) Additional emergency production capability required.
- (3) Continuous surveillance to insure an adequate production base.
- (4) Critical skills or specialized production equipment required.

c. Items are prohibited from selection for planning if they are:

- (1) Solely for comfort, convenience, or morale.

- (2) To become obsolete within 12 months.
- (3) Normally available from commercial sources in sufficient quantities to meet requirements.
- (4) Common to both military and civilian use (except combat rations) where responsibility for planning is assigned to other Government agencies.
- (5) Not mission oriented. IPP for mission-oriented items shall be limited to reduction or elimination of M-Day stock deficiencies for these items.
- (6) Foreign production sources other than Canada will not be used in developing IPPs.
- d.* Calculation of requirements for selected planning items is accomplished annually based on the force levels and other planning guidances issued separately in the Logistics Procurement and Planning Guidance (LPPG) by the Secretary of Defense.
- e.* In planning for production of selected items, preference is given to privately owned facilities. Government-owned facilities are included in the industrial base to provide the resources not available from private industry or where national security or quick response is necessary. DOD Directive 4005.1 outlines the policies and procedures for development of DOD component instructions. In addition to production base facilities, DODI 4005.1 also provides for the existence of adequate commercial maintenance and repair capability to support items of materiel of approved forces for which a depot capability within the components does not exist.

12-3. The Army Industrial Preparedness Program (AIPP)

- a.* The AIPP implements the DOD program described previously for the development and maintenance of an industrial-base capable of supporting approved forces in current and future military operations. This involves the:
 - (1) Planning, programming, and budgeting for the acquisition, production, and maintenance of military materiel under current and emergency conditions.
 - (2) Performing the acquisition, production, and maintenance for selected military items critical to the support of approved forces specified by DA for preparation of part I of the Army Materiel Plan (AMP).
 - (3) Managing industrial production and maintenance facilities, to include the acquisition, expansion, construction, rehabilitation, modernization, and layaway or disposition of plants and equipment.

(4) Formulating, justifying, and defending plans, programs, and budgets for research, development, test, and evaluation (RDTE) and acquisition of materiel from procurement appropriations (PA).

b. The objective of the AIPP is to develop, maintain, and retain the readiness of the Army industrial base to support the military materiel requirements of approved forces.

c. The AIPP consists of:

(1) IPP which is conducted to insure that an adequate industrial base is established, maintained, and retained to be responsive to military materiel requirements in the event of an emergency.

(2) The Production Base Support Program (PBSP) which provides support for the development, maintenance, and retention of an efficient and effective industrial base.

(3) Industrial preparedness operations (IPO) which are conducted to sustain the operational base.

d. IPP involves the assessment of the capability of the industrial base to support peacetime and emergency operations; the determination of requirements for the acquisition and production of selected critical items of military supplies and equipment to support military requirements; and planning with industry to insure adequate procurement, production, and maintenance capabilities to meet support requirements.

e. The production base is made up of Government-owned plants and Government-owned equipment in the hands of private contractors, and privately owned and operated facilities. Private industry is considered the foundation for producing military materiel. Government facilities and plant equipment packages are included in the base to supplement, where necessary, production from private industry. This complex in terms of Army use considers two distinct categories of facilities. First is that group of private producers from which a multitude of items common to the needs of both the Army and civilian economy are purchased. These items include construction, communications, electronics, and other types of equipment readily adaptable for military use. The other is the facilities needed to produce equipment that do not have civilian counterparts such as tanks, missiles, large caliber weapons, and military-peculiar ammunition. Private ownership of this latter category is virtually precluded because, during periods of limited demand, the private contractor could not afford to maintain an idle plant. For this category

the Army must plan for adequate, modern facilities, RDTE activities, improved manufacturing techniques, production lines, reserve of skills and technology in manufacturing military items, and a rapid reaction capability to fill urgent military requirements. The status of the facilities in both of these categories and the actions required to improve the readiness posture of the base for production and maintenance of IPPL items is depicted in a Production Base Analysis (PBA) prepared annually by US Army Materiel Command major subordinate commands.

12-4. Army Policy

a. Department of Army (DA) looks to private industry to provide to the maximum extent the materiel, supplies, and services required to support approved forces. However, the need to augment the capacity of private industry is recognized; thus, some Government-owned capability is retained as stated in AR 700-90. These provide:

(1) RDTE activities.

(2) Process engineering activities including:

(a) Development of improved manufacturing techniques.

(b) Establishment of pilot/prototype production lines for manufacture of new military items being introduced into the system, or to test advanced process techniques for the production of munitions.

(3) A reserve of skills and technology in manufacturing military items to assist in private industry during initial phases of mobilization.

(4) A flexible rapid reaction production capability to fill urgent requirements for military materiel not obtainable from private industry in time to meet required delivery dates.

(5) Short-run production capability for low-density military items, components, assemblies, subassemblies, and parts where manufacture by private industry is uneconomical or unresponsive.

b. Development of new privately owned capacity is encouraged where neither organic military production nor maintenance capacity exists.

c. DA provides for sustained industrial preparedness for production and maintenance of military items for approved forces.

d. DA insures development of adequate information to assess the industrial-base capability to support peacetime and emergency requirements.

e. A 2-year time frame (24-month delivery schedule; i.e., M-day through M + 24 months) is the base of planning with industry and is updated annually, or when significant changes warrant up-

dating. For planning purposes, D-day and M-day are considered to occur simultaneously on the first day of each fiscal year.

f. Staff planners will insure coordination between current acquisition maintenance operations and the development of the IPP.

g. Alternate sources are established when economically justified, directed by higher headquarters to alleviate dependency on sole sources, or to provide dispersion.

h. IPP is initiated early in the acquisition process to insure adequate support.

i. IPP will insure adequate commercial maintenance repair capability for items issued to approved forces for which there is no organic depot maintenance capability.

j. The IPP will provide for expansion of the industrial base when commercial capabilities are independent or the best interests of the Government are served.

k. IPP may be used to assess unprogrammed increases in materiel for contingencies short of full mobilization.

12-5. Responsibilities

a. Policy responsibility within Headquarters, Department of the Army (HQDA) is assigned to the Office of the Deputy Chief of Staff for Research, Development, and Acquisition (DCSRDA). Within that office, the Plans, Policy, and Test Division of the Materiel Plans and Program Directorate is the focal point for interpreting DOD guidance and formulating DA policy and implementing instructions for IPP. Other DA Staff elements coordinate with the Plans, Policy, and Test Division, DCSRDA on matters of mutual interest. The DA role, however, is primarily policymaking. The operational responsibilities are assigned to the Commander, AMC.

b. HQ, AMC, under the general guidance of HQDA, manages, controls, and executes IPP for DA. Management and staff supervision responsibilities within HQ, AMC are assigned to the Assistant Deputy Chief of Staff for Industrial Preparedness in the Office of the Deputy Chief of Staff for Production. Operational aspects of IPP are delegated to the several staff offices having primary interest in the functional portions of the planning. These functions include:

(1) Computation of current and emergency requirements.

(2) Development of IPPs to acquire and produce selected materiel.

(3) Insuring development, maintenance, and retention of an adequate base for future acquisition actions.

(4) Preparation, publication, and distribution of the Army PBA and the Army portion of the DOD IPPL.

(5) Integration of all program elements of the AIPP to support current and emergency requirements.

(6) Integrating inventory management for secondary items and repair parts to support mobilization requirements for IPP principal items.

(7) Planning with industry for depot maintenance mobilization requirements that AMC cannot perform with organic capability.

c. AMC MSCs nominate items for the IPPL based on DA-furnished critical items list (DACIL). The MSCs also compute mobilization maintenance requirements for principal items and select sources for prime contractor planning or delegate this function to an Armed Services Production Planning Officer (ASPPO). If this function is delegated, the MSCs provide the ASPPO with mobilization production and maintenance requirements, technical data, and planning guidance for prime contract and subcontractor planning. The MSCs review completed plans for reasonableness, accuracy, and sufficiency; furnish mobilization requirements for items to be acquired by other DOD components; provide results of planning with industry to other DOD components; and notify ASPPOs when to cancel, extend, or revise planned mobilization acquisition or maintenance schedules.

d. The US Army Industrial Base Engineering Activity (IBEA) provides technical coordination and assistance to HQ, AMC and the AMC major subordinate commands in IPP.

e. The US Army Depot System Command (DESCOM) develops mobilization depot maintenance workload requirements based on guidance from HQ, AMC.

12-6. IPP Procedures

a. IPP is performed to determine realistic mobilization production and maintenance requirements of the Army and the efficient use of existing commercial and organic facilities to meet these requirements. The planning includes selection of combat essential major weapons systems, principal items components, subassemblies, and secondary items for the IPPL in accordance with criteria established by DODI 4005.3. Secondary items for IPP in addition to the criteria stated previously are designated selected item management-expanded (SIM-X) items (i.e., secondary items selected for intensive management). The items selected must

support principal items on the IPPL. Exceptions to these criteria must be approved by HQ, AMC. Planning with industry for mobilization production and maintenance of certain materiel, as stated in paragraph 12-2c, is prohibited.

b. Planning for D-day stockage levels and the investment in base facilities to overcome the deficit in post D-day production/maintenance capabilities is accomplished in accordance with DA Planning and Policy Guidance (PPG). The most economical mix of stocks available on D-day and post D-day production capability is determined by economic analysis. Stocks available on D-day should be capable of supporting the operational forces until production costs meets the sustained combat requirements. The Army Acquisition Objective (AAO) is the basis for determining D-day stockage levels, investment planning, and retention of the industrial base and production rates. Mobilization production requirements for principal items are expressed as monthly rates in part I of the AMP. Mobilization production requirements reflecting post D-day consumption data are annotated in volume I, Production Base Analysis, for each item. Industrial base planning for acquisition of base facilities where sufficient commercial capabilities do not exist is identified in the AMP by force level guidance.

c. Mobilization depot maintenance requirements are determined by AMC MSCs. This maintenance is limited to major weapons systems/principal items listed in the IPPL. Maintenance requirements which cannot be performed with AMC capabilities and are to be accomplished commercially are stated as monthly rates projected over a 3-year period. Requirements are submitted biennially (on even-numbered calendar years) by AMC MSCs to the DESCOM. DESCOM develops depot maintenance mobilization plans distributing the workload according to mission assignments to appropriate AMC depots. The plans are provided to the depots for review and determination of assigned maintenance workload beyond their capabilities to accomplish. DESCOM is advised by each depot of its expected increased capacity and the workload beyond its capacity. HQ, AMC is provided the additional requirements by DESCOM. After review, HQ, AMC provides these requirements to the appropriate MSC for assignment to their industrial preparedness activities for planning with industry. An analysis of mobilization with industry is included in the annual PBA submission by each MSC.

d. Both horizontal and vertical planning with industry is performed.

(1) Horizontal planning views the total domestic capability against the total requirements of all DOD components. It covers a wide range of items including military end items and the components that support these items. Where the end items and/or components are used by more than one military service, one service may be assigned the responsibility for planning with input received from the other services.

(2) Vertical planning is mandatory for all major weapons systems, except mission-oriented items, to insure equitable distribution to subcontractors or requirements by prime contractors for critical assemblies, subassemblies, and components. This planning is extended from the prime contractor down to subcontractors of each critical product area. This planning should show the procurement transaction impact with industry under emergency conditions.

12-7. Industrial Preparedness Planning List

a. The IPPL is an annual publication which indicates those major weapons systems, principal items, and components, together with the using DOD component, which have been selected for planning. The basis for the IPPL is the DA Critical Item List (DACIL). In addition, the AMC MSCs are responsible for nominating to HQ, AMC items to be considered for inclusion in the IPPL. Copies of the IPPL are furnished annually by HQ, AMC to HQDA, other military services, and Defense Logistics Agency (DLA) and include principal items which require separate planning. Cards are submitted annually by the MSCs to the AMC Logistics System Support Activity (LSSA) which prepares listings for review by the originator, HQ AMC and IBEA. The IBEA provides engineering and technical support and guidance to the MSCs during preparation of their lists. IBEA then reviews the lists furnished by LSSA and furnishes corrections to LSSA and HQ, AMC. HQ, AMC, after its review, approves the listing furnished by LSSA and returns the list to LSSA with guidance for publication and distribution of the IPPL. Copies of the IPPL are furnished annually by HQ, AMC to HQDA, to other military services and to the DLA.

b. The IPPL consists of three sections. Part I is an index by nomenclature; Part II lists the item and its planned supporting components; and Part III is a cross reference by Item Control Number.

c. The military services and DLA request each other to mobilizational production plan those items procured by each respective component. Intraservice planning is accomplished as necessary to provide support item planning. The MSCs initi-

ate procurement planning action on these requirements as soon as possible and provide feedback of the IPP actions directly to other components. The MSCs review the IPPLs received from other DOD components to determine that planning requirements have been recognized. The importance of adhering to the schedule for submission of data is emphasized to insure that those responsible for planning any acquisition actions have the required data upon which to act.

12-8. Industrial Preparedness Measures (IPM)

a. An important element of IPP is the identification of those deficiencies in the industrial base that would contribute to the inability of the producer to deliver required items after mobilization is declared so that action can be initiated to improve production capacity, reduce current production problems, or provide for production by new producers. IPMs are the measures or actions designed to shorten post M/S-day leadtime or to increase production/repair capacity for planned items and critical components.

b. The Army fiscal structure provides, in the Procurement, Army (PA), Operation and Maintenance, Army (OMA), RDTE Appropriations, the means for acquiring facilities, improving existing facilities, initiation of pilot line production projects, plant equipment packages, stock piling critical parts, determining required tools, equipment, and skills and maintenance of approved industrial plants and equipment.

c. The IPMs adequately supported by DD Form 1519 are identified and described in the PBA. The proposed IPMs become the basis for the AMC PBA Summary Brochure.

12-9. Production Base Analysis

a. The PBA published annually by IBEA, shows the status of the industrial base that is required and is currently available for production and depot maintenance of IPPL items in an emergency. Each AMC MSC, based on guidance from HQ, AMC and IBEA, prepares a PBA in two volumes annually and submits them to HQ, AMC.

b. Volume I of the PBA, Item Analysis, contains a description of the planning activity mission; the range of items planned; the nature of the supporting industrial base for production of planned items; a statement of planning assumptions; and a summary of recent changes, accomplishments, problem areas, and proposed actions regarding the industrial base. An analysis of planned items and maintenance mobilization requirements together

with associated facilities is also included. An item analysis form is completed for each principal item on the IPPL.

c. Volume II, Facility Analysis, contains management information on both Government-owned and contractor-owned facilities and the active and mobilization reserve IPE associated with the facilities. This volume also includes a description of the condition of plant equipment packages, modernization plans to improve readiness and increase the capacity of the facility, and the status of expansion plans for the facility. A facility analysis is completed for each major end item producer of IPPL items.

12-10. Register of Planned Emergency Producers (RPEP)

This register identifies plants participating in the IPP and the ASPPO responsibility for these plants. Only the production and maintenance facilities of planned producers and those in the process of becoming planned producers at the prime and subcontract levels are listed. The register is published annually in three volumes by HQ, Defense Contract Administration Services (DCAS). Volume I is an alphabetical listing, volume II is a listing by geographical location, and volume III is a listing of the ASPPO. Plants are registered with DCAS under the procedures in DOD 4005.3M.

12-11. Production Engineering (PE)

a. *The Army.*

(1) Uses PE efforts to maintain and improve industrial preparedness by expanding manufacturing technology and translating new technology into practical production processes. Objectives include activities which improve productivity, reduce costs, enhance safety, eliminate or reduce pollution, conserve raw materials and energy, reduce leadtimes, develop multiple sources, find alternatives to production bottlenecks, verify various methods of production suited to substitute noncritical raw materials, or make other improvements.

(2) Encourages and promotes similar effort by private industry contractors.

(3) Production engineering involves:

(a) Producibility engineering and planning.

(b) Manufacturing methods and technology (MMT).

(c) The industrial modernization incentives program (IMIP).

(d) Engineering in support of items in production (ESIP).

(e) Post production engineering (PE).

(f) Value engineering (VE).

(4) The PE Program will support a modern industrial base capable of meeting current and future production requirements for Army materiel and Army managed items. The Army will evaluate technology needs by analyzing production and facility requirements and identifying those manufacturing operations that can and should (based on priority and return on investment considerations) be improved through PE efforts. Technology forecasting, cost driver studies, technology conferences and any other method available will be used to develop comprehensive plans for funding of PE effort. Emphasis will be placed on encouraging industry to undertake PE efforts on their own initiative using private funds. The DCSRDA establishes policy and plans, programs, and budgets for production engineering. The CGAMC plans, programs, budgets, develops procedures, manages, and reports on the execution of production engineering.

b. *Productivity Engineering Planning.*

(1) These are planning and engineering projects that start with feasibility studies and extend through prototype production to ensure that a specific end item or component is capable of quantity production. Producibility engineering planning projects develop cost effective manufacturing processes for a particular end item. They include the application of new or improved techniques, equipment, or materials to manufacture specific weapons systems, components, end items, and prototypes.

(2) They are financed by the Research Development Test and Evaluation (RDTE) appropriation as a part of the specific weapons system involved.

c. *Manufacturing Methods and Technology (MMT).*

(1) MMT projects assist the transition from development to full scale production and expand manufacturing technology by translating new technology into practical production processes. They provide for the development or improvement of manufacturing processes, techniques, and equipment to produce timely, reliable, and economical solutions for current or anticipated problems in the manufacture of materiel or for future acquisition. They produce information which defines, monitors, or controls processes and equipment used in manufacturing and maintenance operations. The program's objective is to significantly improve the productivity and responsiveness of the industrial base (to current, surge, and mobilization requirements) by:

(a) Aiding timely economical production.

(b) Ensuring advanced manufacturing processes, techniques, and equipment are available for reducing materiel acquisition, maintenance, and repair costs.

(c) Continuously advancing manufacturing technology to transition from research and development to full-scale production.

(d) Promoting capital investment and industrial innovation in new plants and equipment by reducing the cost and risk of improving manufacturing technology.

(e) Ensuring that manufacturing technologies are consistent with safety, environment, and energy conservation objectives.

(f) Widely disseminating manufacturing technology results.

(2) Policy

(a) Maximum potential benefits from each investment will be sought by ensuring that:

1 There is a well-defined requirement for technology which can be delivered in time to meet the requirement.

2 Anticipated investment results are applicable to more than one end item.

3 There is a specific plan to implement the results of the investment.

4 The potential for multi-DOD component sponsored investments has been investigated.

(b) The MMT program will not include projects that support basic research.

(c) MMT projects are to be used only when the feasibility of the manufacturing process has been demonstrated by experimental data.

(d) The Army will actively participate in the Tri-Service Manufacturing Technology Advisory group and will participate in joint service projects which benefit the DOD production base.

(3) Responsibilities. The CGAMC is responsible to:

(a) Maintain a continuing, identifiable MMT program in accordance with DOD 4005.1, 4200.15, 4245.6, and 5000.1.

(b) Maintain the following measures of MMT planning and execution:

1 Comparisons between the planned (budget and apportionment) and the actual use of funds.

2 Comparisons between the planned (at time of obligation) and the actual deliverable form investments.

3 Comparisons between the planned (at time of obligation) and the actual implementation of deliverables.

4 Records on the amount of activity designed to disseminate deliverables throughout the industrial base.

(c) Maintain a Manufacturing Technology Program Information System consisting of a centralized computer data base containing information of all planned, active, and completed investments managed and controlled in accordance with DOD Directive 4200.15 and 5000.19. (RCS DD-DRDE(Q) 1679).

(d) Provide timely information on end of contract briefings, completion of MMT tasks, and other appropriate MMT activities to the Manufacturing Technology Information Analysis Center (MTIAC).

(e) Establish procedures to assure that classified, proprietary, or competition sensitive information is not released to MTIAC.

(4) Funding

(a) MMT projects are financed by the RDTE appropriation and will meet the following criteria:

1 Be based on technology or equipment concepts proven by research or laboratory work prior to initiation of the project.

2 Result in new, significantly improved, or more economical processes, techniques, equipment, or production systems.

3 Results, whenever possible, in generic processes, techniques, or equipment functions.

(b) MMT funds may not be used for investments more appropriately funded by other means, such as:

1 Routine application of existing technology for the production of specific parts.

2 Investments specifically intended to change an end item's design.

3 Purchase of off-the-shelf capital equipment, unless it is required to establish the first-case application of the MMT deliverable.

4 Performance testing of materiel produced using MMT deliverables, except to validate the manufacturing process.

5 Implementation of manufacturing technology beyond the first case, factory floor application.

(c) The MMT program will not be used to fund the use of existing processes, techniques, and equipment to manufacture specific parts.

d. Industrial Modernization Incentives Program (IMIP)

(1) Description. IMIP is intended to overcome obstacles to increased capital investment to improve productivity and reduce acquisition costs in both private industry and government operated facilities. Two frequently cited obstacles to private industry productivity investments are program uncertainties and government pricing policies. Program uncertainties introduce risks which hinder investment amortization and long-term planning. Government cost based pricing policy may actually reduce profits as a result of the risks assumed to improve productivity and reduce costs. These obstacles tend to emphasize short-term profits and reduce the desirability of long-term productivity gains. Managers of government owned facilities do not have the advantage of profit incentive and often do not have sufficient funds to conduct analysis to identify worthwhile long-term productivity improvements.

(a) For private industry facilities, IMIP provides incentives to contractors to undertake capital investment programs based on a top-down overall factory analysis. This analysis ensures that capital investments are used to best advantage and that indirect and direct labor costs are affected.

(b) For government operated facilities, IMIP provides funds for analysis to identify long-term productivity improvement investments.

(c) For private industry facilities.

1 Incentives may be provided when the risks, benefits, and "usual" investment is involved and when the risks, benefits, and other factors show the incentives can be justified. All incentives available in acquisition regulations will be allowable in IMIP agreements. Principal incentives used other than IMIP are shared savings awards and contract termination protection which may be used separately or in combination.

2 Contract termination protection is the only incentive which effectively deals with the problem of program instability. Monitorship and control of the extent of unfunded government liability will be maintained.

3 Shared saving allows emphasis on real savings in the production of an item as opposed to weight guidelines which can tend to increase the density of capital machinery without realizing significant reduction in the cost of an item.

4 The focus of IMIP is the modernization of the entire facility and commitment to incremental improvements should be avoided when practi-

cal. Consequently, all projects should be considered allowable for inclusion after the contractor shows a creditable top-down overall factory analysis and improvement plan which demonstrates that real cost savings and productivity improvements can be realized. All facets of the factory must be considered, including indirect labor (overhead).

5 Audit procedures will be developed to document and compare costs and benefits. However, the lack of audit procedures should not eliminate a particular project from consideration if the overall modernization effort evidences an adequate benefit.

6 Weighted guidelines for fee rate determination should provide explicit and substantial allowance for assets employed when applied as an IMIP incentive.

7 IMIP incentives can include an explicit incremental allowance made for incremental investment in future productivity improvement. The allowance will be negotiated on a project basis, be reasonably related to the cost savings accruing to the government, and applied to all benefiting contracts. The risk that anticipated government business which is benefited may not materialize will be taken into consideration to the same extent that the same business is discounted in determining the forward pricing overhead allowance.

(d) For government operated facilities, IMIP provides funding to conduct top-down overall factory analysis and identify capital investments to improve productivity. The IMIP does not fund capital investments of any kind. The policies discussed in paragraph (1) generally apply. CGAMC is responsible for:

1 Managing the IMIP.

2 Auditing the IMIP and providing the the appropriate contracting officer to ensure savings are adequately reflected in contract prices.

3 Reporting IMIP as described in paragraph 3-10.

4 Private industry use of IMIP is funded by private industry. The government uses the request for proposal to request pricing with and without IMIP.

5 Government operated facilities use of IMIP is funded by the RDTE appropriation in the Industrial Preparedness program element.

(e) Engineering in Support of Items in Production (ESIP) and Post Production Engineering (PPE). ESIP and PPE encompass nonrepetitive special engineering and testing by the materiel

developer on items currently in production or those which have been accepted for operational use or introduction into inventory. ESIP and PPE activities include, but are not limited to, the following:

1 Investigating the causes of malfunctions not previously observed during development testing, first article testing, acceptance testing, or in operational usage of type classified materiel.

2 Uncovering suspected by undetermined defects in operational or stored materiel which is not newly manufactured (i.e., has been owned by the government for more than 60 days).

3 Reestablishing, on a one-time basis, the reliability of stored items which have become suspect due to malfunctions in like items issued to users.

4 Revising or establishing surveillance criteria, safe life criteria (except stock funded cannons and gun tubes), service life, shelf life of non-stock funded items, use criteria, or similar yardsticks for items currently in use or in inventory. Such effort may include test or operating data collection; performance or service evaluation; and analyses to establish or improve reliability, maintainability, or safety of type classified/adopted items.

5 Developing and maintaining the Technical Data Package (TDP) for an item in or out of production.

6 Correcting current production problems requiring engineering effort.

7 Developing data or performing preliminary investigations which may lead to a formal product improvement or engineering study.

e. Value engineering (VE). VE is performed to find the required function of Army systems, operations, facilities, equipment, and supplies at the lowest total cost consistent with requirements for performance, reliability, quality, maintainability, and safety. The appropriation financing the prime program will fund VE actions.

12-12. Active Facilities Management

a. The Army industrial base consists of both privately owned and Government-owned production and maintenance capacity. It is this base upon which the Army relies to meet its requirements in peacetime and under emergency conditions. If private industry does not have, cannot, or is not willing to develop the required capacity and for reason of economic benefits and national security considerations the best interests of the Government is involved, Government-financed production facilities

can be expanded, contractor-owned facilities can be augmented by Government-owned facilities or Government-owned facilities provided to meet valid requirements. There are various authority levels for GOGO and COCO installations. For new construction under \$200,000 the installation commander has approval authority; over \$200,000, it must be placed before Congress.

b. HQDA, in accordance with policy and direction from the Office of the Secretary of Defense, provides policy and guidance to the Chief of Engineers, Commander, AMC, and the AMC agency for Munitions Production Base Modernization and Expansion (MPBME). DA also plans, programs, and budgets for industrial base facilities and monitors the Army Facilities Program and the commercial and industrial-type activities program. The Chief of Engineers is responsible for planning and supervising the acquisition of facilities for production and maintenance. The MPBME is the centralized management authority for the planning direction and control of the MPBE Program. AMC, based on guidance and direction of HQDA, plans, programs, and budgets for industrial base facilities. Staff offices within HQ, AMC are responsible for staff supervision of those aspects of the program within their areas of interest. AMC MSCs manage those parts of the production base support program within their assigned commodity areas. They also plan, program, budget, execute, and report provision of industrial facilities projects. IBEA reviews and evaluates all projects and provides comments and analysis to HQ, AMC.

c. Programing for production base facilities and maintenance base facilities is based on requirements stated annually in the AMP. The industrial base is financed by PA, OMA, Military Construction, Army (MCA), or RDTE appropriations, depending on the type facility, equipment, or project involved.

d. Provision of Industrial Facilities (PIF) projects are used to provide the Army's segment of the production base. PIF projects are of four types:

(1) Initial Production Facilities (IPF) projects provide production facilities needed to support low-rate initial production of systems, end items, or components.

(2) Modernization projects are used to improve industrial facilities through replacement, modification, rearrangement, or addition of capability to achieve economic, quantity, time, or safety advantages.

(3) Support projects maintain the designed capacities and capabilities of Government-owned fa-

cilities through equipment replacement or correction of normal deterioration through repair or limited modernization. IPE replacement is included in these projects.

(4) Expansion projects provide facilities to create new capacity or add to existing capacity.

e. Commanders of AMC MSCs, research and development (R&D) commands, and other major subordinate commands determine real property requirements and plans and programs for acquisition or for the activation of inactive facilities to support assigned missions and advise the Office of the Chief of Engineers, DA or the appropriate district engineer of the requirement for real estate planning and reporting. The district engineers are responsible for design and construction of facilities within their assigned areas. AMC MSCs also review existing Government-owned facilities to determine efficiency of utilization and the need for retention to meet mobilization production requirements. These commanders also review Government-owned Government-operated (GOGO) real property facilities for retention or disposal. In addition to reviewing facilities for retention or disposal, AMC major subordinate command, and in turn HQ AMC, review modernization and replacement facilities projects.

f. DA must maintain an active production base to supplement civilian industry capabilities to meet current production requirements. To carry out this policy, subordinate Army commands are charged with managing the elements of the active production base and establishing maintenance and repair programs so that all plant equipment can perform satisfactorily and the base is responsive to Army peacetime and emergency need. Section VI, AR 70090 outlines the policies and procedures to be used in managing the Army's active production base.

12-13. Inactive Facilities Management

a. A continuous program is in effect to evaluate for retention those facilities and plant equipment packages and place those needed in a layaway status kept in a state of readiness for operation as required by the anticipated mobilization needs.

b. In planning for layaway of facilities, consideration is given to the length of time the end items produced will remain in the inventory; the mobilization requirements for this item; the stock status of items; cost of stockpiling versus retention of facilities; other production sources startup time for facility after reactivation; and future availability of materiel to support the facility.

c. To meet required responsiveness, three states of readiness are identified in layaway planning:

(1) High—those required to initiate production by M + 90 days.

(2) Medium—those required to initiate production between M+ 90 and M + 180 days.

(3) Low—those required to initiate production after M+180 days. In this state maintenance of buildings, support equipment, roads, and grounds will be the minimum required to preserve operational capability and safety conditions and eliminate hazardous conditions.

d. For selected layaway projects, consideration is given to dispersion and protection of vital production capacity. In determining the location of plant equipment packages, consideration is given to outside versus dispersed storage sites, time required for reactivation, and the costs for moving and losses due to movement. It is preferred that plant equipment packages be stored in place or as close as possible to the last place they were operated. Equipment should be stored in DOD or Government-operated storage space wherever possible. If needed for reactivation of a facility, other essential equipment such as special tools/special test equipment, training aids, materials handling equipment, and major office equipment items may be stored as part of the plant equipment package. After plant equipment is placed on layaway status, a continuous program will be conducted to improve and maintain these packages in the highest state of readiness that can be economically justified.

e. Controls are established by responsible commanders on plant equipment to provide for screening the Defense Industrial Plant Equipment Center (DIPEC) for IPE that can be used to fill voids or replace unserviceable or obsolete equipment. Plant equipment packages are reviewed to see if retention criteria are met. Before layaway, each item is tested to determine its condition code. All equipment is placed in satisfactory operating condition before being placed in layaway. If equipment is placed in layaway status with uncorrected deficiencies, these will be identified and recorded and followup action will be taken to replace or rehabilitate unserviceable equipment. Technical assistance can be obtained from DIPEC for inspection of equipment to determine its condition code.

f. The commanders of Army installations are required to conduct annual inspections of each Departmental Industrial Plant Reserve (DIPR), National Industrial Plant Reserve (NIPR) and Reserve Commercially Acquired Plant (RCAP) for which they have been assigned jurisdiction or inspection responsibility. These inspections determine the actual condition of buildings and equip-

ment; capabilities to respond to assigned missions; and the adequacy of maintenance. A report is furnished to IBEA each year for review and submission to HQ, AMC. HQ, AMC approves the reports and makes distribution. The reporting procedures are described in section IV, chapter 5, AR 700-90.

12-14. Defense Priorities and Allocations Program

a. The Defense Production Act authorizes the President of the United States to establish priorities and allocations that insure the acceptance and performance of defense contracts and orders by appropriate segments of industry. The Presidential authority for policy development was re-delegated to the Federal Emergency Management Agency (FEMA) who re-delegated administration to the Secretary of Commerce. The Department of Commerce issued the Defense Priorities and Allocations System (DPAS) Final Rule in the Federal Register on 30 Jul 84. This final rule was effective 29 Aug 84. The DPAS is binding on industry and government personnel and is the legal basis for obtaining preferential treatment and timely delivery on defense contracts and orders. The new DPAS final rule also contains a new Delegation of Authority to the Secretary of Defense (Note: The Secretary of Defense has not yet re-delegated the new authority. Priorities and Allocations actions currently in process are within the scope of the previous delegation of authority.) The DPAS prescribes the rules and procedures for defense activities and private industry covering assignment of industrial priorities and allocations to authorized contracts and orders that promote national defense, including acceptance or nonacceptance.

b. DODI 4400.1, the DOD priorities and Allocations Manual (PAM), implemented as AR 715-5, provides guidance to DOD components and DA to carry out Secretary of Defense responsibilities. AR 715-5 describes the various procedures, reports, and forms required by the DOD Priorities and Allocations Program.

c. Within the Office of the Secretary of Defense, the Assistant Secretary of Defense (Acquisition and Logistics) has been delegated the priorities and allocations authority with permission to re-delegate the authority to issue ratings and allotments to DOD components. Pursuant to this delegation of authority, the Secretaries of the military services and the directors of defense agencies have been given the authority to apply or assign to others the right to apply DX and DO ratings and allotment numbers to contracts or delivery orders needed to meet DOD research and development; procurement and production; maintenance and construction program objectives.

d. Department of the Army (DA) priorities, and allocations authority and responsibilities are delegated and assigned to the Commander, AMC, who exercises DA staff management, direction and control of DA operations related to the DOD priorities and allocation program. This includes assignment of priorities to contracts and orders for authorized defense programs. All DA procuring activities establish within their areas of responsibility the procedures to assign appropriate defense priority ratings to all contracts, subcontracts, and purchase orders. They also establish procedures to advise contractors, subcontractors, and suppliers of their rights, violations, and the DPAS procedures and the provisions of the DOD Priorities, and Allocations Manual (PAM).

e. "DO" and "DX" are rating symbols used to designate industrial priorities for acceptance and performance of certain contracts and orders in preference to others. DX-rated contracts and orders take precedence over DO-rated and unrated contracts and orders. All military procurement, except those items prohibited from being rated (see AR 715-5) are assigned a rating and an identification code which identifies the item to a DOD claimant program.

12-15. DOD Master Urgency List (MUL)

a. The DOD publishes periodically a list of items required to support national defense and security that have been determined to require special attention. Each military service and other DOD component nominates, in accordance with DODI 4410.3, those items of the highest urgency for inclusion in the MUL. The items nominated are reviewed by appropriate Offices of the Secretary of Defense (program considerations), the Joint Chiefs of Staff (military importance considerations), and the Office of the Assistant Secretary of Defense for Acquisition and Logistics (production resource considerations). The Assistant Secretary of Defense for Acquisition and Logistics is responsible for submitting the MUL to the Secretary of Defense for approval. When approved, the MUL provides the basis for determining relative program precedence for assignment of resources. The MUL is used as a guide by the Federal Emergency Management Agency, the General Services Administration; Department of Commerce; the DOD components; the Department of Energy; and the Canadian Department of Supply and Services to identify relative ranking of high-interest items and inadequacies in the industrial base that affect the most urgent programs.

b. For national and military urgency categories have been established in the following order of precedence:

(1) *BRICKBAT*. These items have been selected as being of the highest national priority because of key political, scientific, psychological, or military objectives. These programs require approval by the President. They are assigned a DX industrial priority rating and carry a higher priority than items in other categories. All *BRICKBAT* items have equal priority.

(2) *CUE-CAP*. Items selected for this category have been determined to be of the highest DOD priority because of military essentiality and criticality. A *CUE-CAP* program is assigned DO priority rating and given a relative priority number within that category. For example *CUE-CAP 15* indicates there are 14 items in this category of higher priority. *CUE-CAP* programs are approved by the Secretary of Defense.

(3) *DRY-DAY (Reserved for Emergency Use Only)*. These programs are considered for the support of expanded resources. These items are also assigned DO ratings and a relative order of priority. They are approved by the Secretary of Defense.

(4) *ELK-EAR (Reserved for Emergency Use Only)*. Programs in this category are considered desirable to support war reserve requirements. They, too, are assigned DO ratings and relative priority and are approved by the Secretary of Defense.

c. Currently, the MUL consists only of items within the *BRICKBAT* and *CUE-CAP* categories.

The other categories will be used if necessary in an emergency.

d. Items remain on the MUL only so long as special attention is required. Periodic reviews are made by the DOD components and other program participants to determine that they meet the criteria for selection and support the objectives of DOD as stated in the Joint Strategic Planning Document and the objectives of the military departments. Those that do not meet the criteria stated in DODI 4410.3 and AR 700-90 should be promptly removed from the list.

e. Each DOD component and participant designates a single point of contact to coordinate urgency actions.

f. Army, MUL nominations are initiated by the Project/Program/Product managers and item managers who prepare nominations for the MUL based on higher echelon criteria and other specific guidance from HQ, AMC. These nominations are reviewed, analyzed, and approved by HQ, AMC for transmittal to HQDA. HQDA reviews nominations submitted to insure that Department of the Army Master Priority List (DAMPL) priorities are integrated with approved MUL programs and that only the most urgent Army programs are nominated to DOD for the MUL. If appropriate, HQDA initiates nominations for the MUL and establishes internal DA policies for the use of the MUL. Procedures for nominating Army programs for the MUL are outlined in AR 700-90.

g. In the event of mobilization, other items are reviewed by appropriate Army elements and HQDA for integration into the MUL.