

SUBSISTENCE

INSPECTION OF COMPOSITE OPERATIONAL RATIONS

APRIL 2001

DEFENSE SUPPLY CENTER PHILADELPHIA
700 ROBBINS AVENUE, PHILADELPHIA, PA 19111

**DSCPH 4155.2
DSCP-HS
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FORWORD

(Supplementation is permitted)

This Handbook is an aid to inspectors of composite operational rations. This basic document and associated Appendices provide guidelines for sampling, inspecting, classifying defects, and determining lot disposition for the various types of composite operational rations.

This Handbook has undergone extensive changes, including the title, and should be reviewed in its entirety.

Concurrence of the Military Services is contained in the enclosed letters. Users of this publication are encouraged to submit comments and recommended changes to improve the publication, through channels, to DSCP, Attn: DSCP-HS.

Changes will be coordinated with Military Services and implemented as appropriate.

FOR THE COMMANDER



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Chief, Base Supply and
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**DISTRIBUTION
Special**

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Appendices (Incorporated as Separate Documents)

- A. Appendix A - Inspection of Meal, Ready-to-Eat (MRE).
- B. Appendix B - Inspection of Unitized Group Rations – Heat & Serve.
- C. Appendix C – Meal, Cold Weather/Food Packet, Long Range Patrol MCW/LRP.
- D. Appendix D - Inspection of Rations, Lightweight - (Not Published To Date).
- E. Appendix E - Inspection of Food Packet Survival, Aircraft, Life Raft.
- F. Appendix F – Food Packet, Survival, Abandon Ship.
- G. Appendix G - Food Packet, Survival, General Purpose.
- H. Appendix H - Inspection of the Humanitarian Daily Ration.

I. REFERENCES.

- A. DoD 4140.27-M, Shelf Life Item Management Manual.
- B. DLAM 4145.12, Joint Service Manual (JSM) For Storage and Materials Handling, Section IV, Subsistence.
- C. AR 30-7/DLAR 4145.36, Food Program, Operational Rations.
- D. AR 40-656/NAVSUPINST 4355.10/MCO 10110.45, Veterinary Surveillance Inspection of Subsistence.
- E. AR 40-657/NAVSUPINST 4355.4 /MCO P10110.31, Veterinary/Medical Food Inspection.
- G. AFI 48-116, Food Safety Program.
- H. DLAM 4155.2, Quality Assurance Program Manual for Defense Supply Centers and Defense Industrial Plant Equipment Centers.
- I. DLAM 4140.2, Supply Operations Manual.
- J. DLAR 4155.37, Appendix S, Materiel Quality Control Storage Standards.
- K. TB MED 263, Veterinary Service, Identification of Inspected Foods.
- L. DLAI 4145.31, Integrated Stored Product Pest Management.
- M. MIL-STD 904, Guidelines for Detection Evaluation and Prevention of Pest Infestation of Subsistence.
- N. Armed Forces Pest Management Board, Technical Information Memorandum (TIM-38), Protecting Meals, Ready-To-Eat Rations (MREs) During Storage.
- O. DSCP Manual 4155.6, Subsection 218.2, Entomological Laboratory Infestation Services.

II. PURPOSE and SCOPE. This Handbook provides uniform guidance to all DoD personnel responsible for the inspection and technical management of operational rations under the control of the Military Services, DLA, and/or civilian organizations.

III. POLICY.

A. Operational rations will be subjected to continual inspections and systemic quality evaluations from time of receipt to time of use or consumption. When quality deficiencies are noted that change the Condition Code of operational rations, prompt action will be initiated to identify affected stocks, possible cause of the deterioration, and to provide disposition recommendations to the accountable officer/agency.

B. Storage facilities for operational rations will be selected, maintained and inspected in accordance with DLA and/or Service regulations as appropriate. Storage facilities will receive the same level of attention as the operational rations themselves during inspection.

C. Rations showing physical signs of contamination (e.g., foreign odors, oily cases, etc.) or suspected to have been exposed to chemical, biological, and/or radioactive contaminants will be inspected in accordance with directives of the controlling Service/agency specific to these types of situations.

IV. RESPONSIBILITIES.

A. The Product Services Office, Defense Supply Center Philadelphia (DSCP-HS) is responsible for developing, maintaining, and coordinating this Handbook and any proposed changes with inspection and food service activities of the Military Services. In addition, the Operational Rations Business Unit (DSCP-HR) is responsible for providing contractual inspection guidance when requested by an inspection activity for warranty inspection purposes.

B. Inspection services shall be provided by either the USAF Public Health Services or the U.S. Army Veterinary Service as appropriate.

C. Storage and warehousing services necessary to provide adequate labor and materials handling to conduct sampling and recouping of operational rations shall be provided by the activity having custodial management of the rations.

D. Inventory shall be managed the Operational Rations Business Unit (DSCP-HR), Defense Supply Center Philadelphia; or the Ordering Officer; or the Accountable Officer having material management responsibility for the rations.

V. DEFINITIONS.

A. Action Number. A number which, when reached or exceeded, indicates additional inspection is necessary or indicates a component is defective beyond acceptable limits and the menu(s) that contains it must be evaluated for serviceability.

B. AVI. Army Veterinary Food Inspector

C. Contractor's Lot. The collection (grouping) of units of a specific product limited, as much as possible, to units of identical characteristics as established by:

1. Stock number.
2. Package size.
3. Contractor.
4. Contract number.
5. Date of pack.
6. Type of pack
7. Quality and storage history.

- D. Component. An item in a composite ration. Components have different levels of importance/significance to the overall ration primarily based on their caloric value.
- E. Composite Ration. An operational ration composed of several different components that undergo different rates of deterioration over time and temperature variations.
- F. Date of Pack (DOP). Date on which the product was packaged in the unit or primary container. DOP for operational rations is usually the date when components are assembled and packed into shipping containers.
- G. Defect. An imperfection in component material, workmanship, quality or condition which fails to meet established standards. Defects are normally classified according to their seriousness (i.e., Major A, Major B, or Minor).
- H. Defective. A component with one or more defects.
- I. Deterioration. A process of change occurring in a food item which affects the product's normal appearance and/or wholesomeness; which will eventually limit its serviceability.
- J. Direct Vendor Deliver (DVD). Delivery of rations directly from the ration assembler to the military installation.
- K. Grand Lots: An administrative procedure where two or more lots from one assembly contractor are grouped into one grand lot. Products normally are not moved for inspection purposes. However, the samples are selected proportionally from and representative of each contractor's lot.
- L. Grand Lotting. Collecting or grouping two or more lots presumed equal in quality in order to decrease the cost of surveillance inspections by reducing the number of samples.
- M. Inspection Level. A factor that determines the relationship between the lot or batch size and the sample size.
- N. Inspection Test Date (ITD). A date occurring a specified number of months after the date of pack. The ITD is related to, but less than, the estimated shelf life.
- O. Lot (Inspection Lot). A collection of units of a product from which a sample is to be drawn and inspected.
- P. Lot Size. The number of units of a product in a lot.
- Q. Meal/Menu. A specific quantity of nutritionally balanced food provided one person during a scheduled serving period. A combination of three meals/menus (breakfast, lunch, dinner) constitutes a ration.
- R. Operational Ration. A ration used by the military services for field feeding.
- S. Perishable Foods. Foods that require refrigeration during transportation or storage.
- T. Ration. An allowance of food for the subsistence of one person for one day.
- U. Semiperishable (Shelf Stable) Foods. Foods that do not require refrigeration during transportation or storage.
- V. Serviceability. The fitness of an item for its intended purpose; generally expressed in terms of Condition Codes. For composite operational rations, three factors are essential: estimated remaining shelf life; current quality and condition of the item and its components, and packaging and packing integrity.
- W. Shelf Life. The total elapsed time from the DoP to the date of issue for immediate consumption.
- X. Sublot. A collection of units of a product contained within a lot.
- Y. Unfit for Human Consumption. Rations that present a clear potential or actual health hazard if consumed, as determined by local medical authority.
- Z. Unfit for Intended Use. An item which can no longer be used as originally intended because of deterioration or other restricting factors.

VI. INSPECTION FACILITIES AND EQUIPMENT.

- A. Inspection facilities are normally required at fixed storage locations.

1. Location. A fully enclosed room convenient to the storage facility or location of the rations being inspected. Entrance shall be restricted to those involved in the inspection process. The area should be consistent with the extent of the operation, be heated/air conditioned, and be accessible by forklift.
2. Ventilation. Well ventilated and free from dust and odors of all kinds.
3. Lighting. The intensity of light needed for critical appearance examinations should be at least 100- foot candles. Florescent lighting shall be restricted to the special daylight type.
4. Furnishings.
 - a. Inspection tables and/or counters should be approximately 36 inches high and 30-36 inches wide. The tops should be impervious (e.g., stainless steel, enameled steel, or pressure laminated plastic).
 - b. The sink (preferably three-compartment stainless steel) must have hot and cold running water, large enough to accommodate the largest equipment used, and must have at least a 1/2 horse power disposal system.
 - c. Storage cabinets or work counter shelves used for storing equipment and supplies should be provided with hinged doors and/or sliding drawers.

VII. SERVICEABILITY.

A. Serviceability determinations have traditionally been made based on estimated remaining shelf life. This approach for composite operational rations is not practical as the sole means of determining serviceability. Operational rations are normally assembled into composite menus (e.g., MREs) or modules (e.g., UGRs) that contain numerous non-homogeneous products. Since components are different; packaged at different times, and deteriorate at different rates, condition coding based on shelf life alone is not practical or indicative of the overall serviceability of the rations.

B. In accordance with this Handbook, Condition Codes and estimated remaining shelf life for composite rations will be based on:

1. The condition of each component evaluated individually.
2. The importance of each component relative to the ration in which it is contained.

C. Condition Code criteria for each composite ration is contained in the appropriate Appendices.

VIII. TYPES AND SCHEDULING OF INSPECTIONS.

A. Receipt Inspection. An inspection upon delivery where a change of Accountable Officer occurs. All rations will be inspected at time of receipt or as soon as possible thereafter. A complete inspection is required if current inspection guidance does not accompany the shipment or found in the appropriate database. If current inspection is verified, a general examination will be made for transportation damage/obvious defects. Additional information on receipt inspections can be found in the applicable appendix to this handbook.

B. In-storage Inspection. These are inspections performed on a routine schedule while the rations are in storage. Perishable operational rations (UGR-A) are not designed or intended for long storage periods, however UGR-A's will be inspected monthly to determine product condition once they have reached their ITD. DLA owned semiperishable operational rations not kept in cold storage/war reserve locations, should be inspected at six month intervals. Service-owned rations should be inspected annually, at a minimum. Inspection frequency should be maintained as long as the ration inspection results do not indicate significant degradation, and the rations have not exceeded their serviceable storage life based on the criteria in DoD 4140. 27-M, and applicable appendix. Rations with a low water activity, such as survival rations need only be inspected annually (DLA-owned or service owned) as long as the rations inspection results do not indicate significant degradation, and the rations have not exceeded their serviceable storage life based on the criteria in DoD 4140. 27-M,

and applicable appendix. The accountable officer may request inspection at any time.

Semiperishable rations will be inspected:

- a. At six month intervals once the ITD has been reached, as long as they are still in Condition Code A.
- b. At three month intervals, once the rations have been placed in Condition Code B.
- c. At one month intervals, once the rations have been placed in Condition Code C

3. Warranty Inspection. A detailed inspection conducted within the contractual warranty period in accordance with acquisition contract criteria. A warranty inspection is performed at the first DoD destination to receive the rations from the assembly contractor (excluding commercial contract warehouses). Ideally, warranty inspections will be conducted between five and six months of the date of receipt at destination. Warranty inspections should not be performed on tray pack modules assembled at defense depots.

The quality assurance provisions and criteria of this Handbook are not to be interpreted as contractual. The acquisition activity will provide lotting procedures, guidance on sampling plans, tables of inspection, and other pertinent information needed by the inspection activity. For Air Force stocks, inspectors will contact the Air Force Services Agency (HQ AFSVA/SVOHT). AFSVA will coordinate requests with DSCP and the inspection activity.

4. Inspection Prior to Sale or Shipment. These are inspections performed to detect obvious condition defects and/or damages that have occurred since the last scheduled cyclic inspection (e.g., mishandling, water damage, temperature abuse). If scheduled inspections are not current or have not been performed, a more detailed inspection should be conducted at this time to preclude the movement of damaged/distressed stocks.

5. Special Inspections. A special inspection will be performed when determined necessary based on routine inspection findings, customer complaints, requests from DSCP or the Military Services, or whenever reasons exist for such an action. For UGR-A's, special inspections are only requested by DSCP or the Accountable Officer.

IX. MARKING AND IDENTIFICATION OF INSPECTED SUPPLIES. Ration samples that are inspected and returned to storage will be identified as inspection samples in accordance with the procedures specified in TB MED 263 (Veterinary Service, Identification of Inspected Foods) or other appropriate means.

X. LABORATORY ANALYSIS. A. When doubt exists as to the condition of a lot of operational rations and the inspection activity determines there is a need for a laboratory examination and/or test, samples will be submitted to the DOD Veterinary Laboratory. Utilization of laboratories in the determination of serviceability is encouraged whenever it is deemed necessary by the inspection activity.

B. Laboratory guidance for sample submission is currently available in Handbook format.

XI. PEST INFESTATION AND LABORATORY SUPPORT. Infestation, damage, or contamination by insect and/or rodent pests encountered during any operational rations inspection procedure will be immediately reported to the Product Quality Office (DSCP-HROS). DSN: (215) 737-3876 or 7533 (DSN 444). For Air Force stocks, this information will also be reported to AFSVA/SVOHT. In the case of insect infestation, the initial notification will be followed up by submission of a DD Form 1222, Request for Results of Tests, (or locally approved laboratory form) filled out and submitted-in accordance with DPSC Manual 4155.6, Subsection 218.2.

An in-depth facility inspection should be conducted by inspection personnel, storage facility manager, and the responsible pest control activity. Appropriate pest control actions should be taken, when necessary, using the guidance contained in DLAI 4145.31 or applicable Service directives. If the current storage location is not the suspected source of infestation, the previous storage facility will be contacted and similar investigative procedures initiated. If the operational rations in question were received infested from a supplier or DLA storage site, contact DSCP-HROS immediately for follow-up action and appropriate recommendations.

Disposition recommendations for infested stocks will be based on MIL-STD-904 or applicable Service directives and, when applicable, laboratory identification results. Final decisions on the disposition of inspected rations should be made jointly by the inspection activity and the owner of the rations. In cases where rations are placed on medical hold, final disposition must be coordinated by the owner of the rations with the local medical authority.

XII. QUALITY HISTORY RECORDS (QHR).

A. Reports (QHRs) will be entered into the appropriate Lotus Notes inspection database. Where these databases are not accessible, DSCP Form 5117 or 5081 as applicable will be completed and kept at the local level. A copy of the QHR (either LN printout or applicable form) will be provided to the Accountable Officer. QHRs will also include reports received with a shipment from another location.

B. DSCP Quality Assurance personnel have access to Lotus Notes database information. Electronic transmissions of inspection reports in Lotus Notes are acceptable to DSCP and encouraged. However, if reports on deteriorating stocks are not entered into the appropriate database, faxed/mailed copies of *less than Condition Code A* stocks must be faxed/mailed to:

Defense Supply Center Philadelphia
ATTN: DSCP-HSQ Building 6
700 Robbins Avenue
Philadelphia, PA 19111
FAX: (215) 737-7526 (DSN 444)

C. For stocks arriving without current quality history records, the local supporting veterinary activity or the MACOM Veterinarian should be contacted for assistance.

D. Specific distributions of inspection reports may be addressed in the applicable appendix.