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MIL-G-28554C 17 November 1988 SUPERSEDING MIL-G-28554B 16 January 1978

MILITARY SPECIFICATION

GENERATOR SETS, MOBILE ELECTRIC POWER AND SUPPLEMENTAL EQUIPMENT; PACKAGING OF

1. SCOPE

- 1.1 <u>Scope</u>. This specification covers the requirements for the preservation, packing, and marking of mobile electric power generator sets and supplemental equipment for storage and shipment (see 6.1).
 - 2. APPLICABLE DOCUMENTS
 - 2.1 Government documents.
- 2.1.1 <u>Specifications and standards</u>. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

0-8-801	- Sulfuric Acid, Electrolyte; for Storage Batteries.
QQ-S-781	- Strapping, Steel, and Seals.
TT-P-664	 Primer Coating, Synthetic, Rust-Inhibiting,
	Lacquer-Resisting.
UU-T-81	- Tags, Shipping and Stock.
PPP-F-320	- Fiberboard: Corrugated and Solid, Sheet Stock
	(Container Grade) and Cut Shapes.

|Beneficial comments (recommendations, additions, deletions) and any pertinent|
|data which may be of use in improving this document should be addressed to: |
|Commanding Officer (Code 156), Naval Construction Battalion Center, Port |
|Hueneme, CA 93043-5000, by using the self-addressed Standardization |
|Document Improvement Proposal (DD Form 1426) appearing at the end of this |
|document or by letter.

AMSC N/A AREA PACK

<u>DISTRIBUTION STATEMENT A</u>. Approved for public release; distribution is unlimited.

- Boxes, Wood, Cleated Plywood.
- Boxes, Wood, Nailed and Lock Corner.
- Box, Shipping, Fiberboard.
- Box, Fiberboard, Corrugated, Triple-Wall.
- Barrier Material, Waterproofed, Flexible.
- Packaging and Packing of Hand Tools.
- Sack, Shipping, Paper (Cushioned or Reinforced).
- Tape: Packaging, Waterproof.
- Tape, Pressure-Sensitive Adhesive, Filament
Reinforced.

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MIL-C-104	- Crate, Wood, Lumber and Plywood Sheathed, Nailed and
	Bolted.
MIL-P-116	- Preservation, Methods of.
MIL-B-121	- Barrier Material, Greaseproofed, Waterproofed,
	Flexible.
MIL-R-196	- Repair Parts, Accessories, and Kits, Mechanical,
	Packaging of.
MIL-C-3600	- Compressor, Air and Gas (Except Oxygen), Packaging of.
MIL-C-3774	- Crate, Wood; Open 12,000 - and 16,000 Pound Capacity.
MIL-E-10062	- Engine: Preparation for Shipment and Storage of.
MIL-V-13811	- Varnish, Waterproofing, Electrical, Ignition.
MIL -E 16298	- Electric Machines Having Rotating Parts and Associated
	Repair Parts: Packaging of.
MIL-1-22085	- Tape, Pressure-Sensitive Adhesive, Preservation and
	Sealing.
MTI -R-26195	- Box Wood Cleated, Skidded, Load-Bearing Base.

STANDARDS

FEDERAL

FED-STD-TOT - Preservation, Packaging, and Packing Materials: Test Procedures.

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MIL-SID-105 - Sampling Procedures and Tables for Inspection by Attributes.

MIL-SID-129 - Marking for Shipment and Storage.

MIL-SID-281 - Automobile, Trucks, Truck-Tractors, and Trailer Dollies; Preservations and Packaging of.

MIL-SID-1186 - Cushioning, Anchoring, Bracing, Blocking, and Waterproofing; with Appropriate lest Methods.
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(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

2.2 <u>Non-Government publications</u>. The following document(s) form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents which is current on the date of the solicitation (see 6.2).

DEPARTMENT OF COMMERCE

PS-51 - Hardwood and Decorative Plywood.

PS-1 - Construction and Industrial Plywood.

(Application for copies should be addressed to the Superintendent of Documents, US Government Printing Office, Washington, DC 20402).

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Association, Inc., Traffic Department, 1616 P Street, N.W., Washington, DC 20036.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Tariff Publishing Officer, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

(Non-Government standards and other publications are normally available from the organizations which prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 <u>Order of precedence</u>. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 <u>First article pack</u>. Unless otherwise specified (see 4.3 and 6.2), the contractor shall furnish a first article pack for examination and test to prove, prior to starting production, preservation, and packing, that the applied preservation, packing, and marking comply with the requirements of this specification. Examination and tests shall be as specified in section 4 and shall be subject to surveillance and approval by the Government (see 6.4).

- 3.2 <u>Materials</u>. Materials shall be as specified herein (see 6.2), and in applicable specifications and standards, and other referenced documents. Materials not specified shall be selected by the contractor and shall be subject to all provisions of this specification. Materials shall be free of defects which adversely affect performance or serviceability of the finished product.
- 3.3 <u>Preservation</u>. Preservation shall be level A, B, or C, as specified (see 6.2).

3.3.1 Level A.

- 3.3.1.1 <u>Disassembly</u>. Disassembly of the generator sets and supplemental equipment shall be the minimum necessary to safeguard parts vulnerable to damage, pilferage, and loss; and to remove protruding parts, such as exhaust stacks, air cleaners, and standpipes, that would otherwise increase cubage; however, disassembly shall be limited to those parts that can be removed and reinstalled without special tools.
- 3.3.1.2 <u>Matchmarking</u>. When necessary to facilitate reassembly, parts removed and mating parts shall be matchmarked. Matchmarking shall be marked on tags conforming to UU-1-81, type A, attached to the mating parts with wire or twins. Marking on tags shall be with waterproof ink.
- 3.3.1.3 <u>Cleaning, drying, and application preservatives</u>. Surfaces to which preservatives are to be applied shall be cleaned and dried in accordance with MIL P-116. P-type preservatives specified herein shall conform to the applicable specification listed and shall be applied in accordance with MIL P-116.
- 3.3.1.4 Exterior surfaces. Uncoated exterior ferrous metal surfaces, including threaded surfaces and surfaces exposed by disassembly, shall be coated with type P-1 preservative. Type P-2 or P-19 preservative may be used in lieu of type P-1 when the equipment is to be packed in a box or sheathed crate. On any surfaces, where the type P-1 coating would have to be removed before placing equipment in service, or where removal may cause damage, the surface shall be coated with type P-19 preservative. Unpainted metal information plates, except photosensitized anodized aluminum plates, on unboxed generator sets shall be coated with varnish conforming to MIL-V-13811.

3.3.1.5 Generator sets.

3.3.1.5.1 For sets not exceeding 200 pounds (1bs).

3.3.1.5.1.1 <u>0.5 Kilowatt (kW)</u>. Each 0.5 kW generator set shall be preserved in accordance with MIL-P-116, submethod IIb. The inner container shall conform to PPP-B-636, type CF, class domestic, variety SW, grade 200, style RSC. The outer container shall conform to PPP-B-636, grade V3c, style RSC. A single or built-up piece of fiberboard, approximately 1-inch (in) thick and conforming to PPP-F-320, type CF, class, variety, and grade optional, shall be snuggly wedged between the control box and the fuel tank and another piece of fiberboard placed over the face of the control box.

The fiberboard shall be secured in place with tape conforming to PPP-1-97, type II, class A or B, size 3/4 inch, applied horizontally around the control box and fuel tank with sufficient tension to prevent movement of the fiberboard or control box. Prior to enclosing the generator set in the submethod IIb barrier material, the consolidated packed items and any individual items, as required, shall be placed within the confines of the generator set and the engine accessories shall be preserved as specified in 3.3.1.6.1.1 for engine preserved method II. When furnished, the generator canvas cover shall be installed on the gnerator set. An internal type humidity indicator shall be required within the submethod IIb pack as specified in MIL-P-116. The outer container shall be closed in accordance with method V of the appendix to PPP-B-636.

- 3.3.1.5.1.2 1.5 kW. Each 1.5 kW generator set shall be preserved in accordance with MIL-P-116, submethed IIb. The inner container shall conform to PPP-B-636, type CF, class domestic, variety SW, grade 350, style RSC. The outer container shall conform to PPP-B-636, grade V13c, style RSC. Prior to enclosing the generator set in the submethed IIb barrier material, the consolidated packed items (see 3.3.1.23) and any individual items, as required, shall be placed within the confines of the generator set and the engine and engine accessories shall be preserved as specified in 3.3.1.6.1.1 for engines preserved method II. When furnished, the generator canvas cover shall be installed on the generator set. An internal type humidity indicator shall be required within the submethod 11b pack as specified in MIL-P-116. The outer container shall be closed in accordance with method V of the appendix to PPP-B-636.
- 3.3.1.5.2 For sets 200 lbs to 1,000 lbs. Sets shall be preserved in accordance with MIL P-116, submethed IIa. The completed set shall be enclosed in the submethed IIa barrier and bolted through the barrier to base of the shipping container in 3.4. An internal or external type humidity indicator shall be required for the submethed IIa pack as specified in MIL P-116. When an internal type humidity indicator is used, an inspection window shall be provided in the barrier. Indicators shall be located so that the top panel of the container shall serve as the inspection port. Prior to enclosing the set in the submethed IIa barrier, the consolidated packed items (see 3.3.1.23) and any individual items, shall be placed and secured to the set within the barrier, and the engine shall be preserved as specified in 3.3.1.6 for engines preserved method II. When furnished, the generator canvas cover shall be installed on the generator set.
- 3.3.1.5.3 For sheathed crated sets. Sets shall be preserved submethed IIa as specified in 3.3.1.5.2, except that when an inspection window is provided in the barrier, it shall be located to coincide with the inspection door in the crate. When specified (see 6.2), in lieu of preserving submethed IIa, the generator component of the set shall be preserved by the alternated method specified in MIL-E-16298, level A, for electric machines attached to mechanical equipment, and the engine preserved method I, as specified in 3.3.1.6.

- 3.3.1.5.4. For sets uncrated or in open type crates. Generator components shall be preserved by the alternate method specified in MIL-E-16298, level A, for electric machines attached to mechanical equipment, and the engine preserved method I, as specified in 3.3.1.6. When specified (see 6.2), generator set(s) mounted on a trailer shall be preserved submethod IIa, as specified in 3.3.1.5.2, except the weight limitations shall not apply and the generator set(s) shall be secured directly through the barrier material to the trailer chassis, using the required bolts. The engine(s) shall be preserved method II as specified in 3.3.1.6. The generator set(s) shall be protected with a wood housing as specified in 3.4.1.5. Generator set(s) mounted inside of semitrailers shall be preserved by the alternate method of MIL-E-16298, level A as specified herein.
 - 3.3.1.6 **Engines**. (see 6.7).
 - 3.3.1.6.1 Gasoline and diesel engines.
- 3.3.1.6.1 <u>Engines and boxed or fully sheathed crated sets</u>. Engines and accessories of method 11 preserved generator sets, shall be preserved in accordance with MIL-E-10062, level A, type II, method II. Engines and accessories of generator sets not preserved by method II, shall be preserved in accordance with MIL-E-10062, level A, type II, method I, and in addition, shall have all openings into the engine and accessories including air intake and exhaust, sealed with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II.
- 3.3.1.6.1.1 <u>Engines of uncrated or open type crated sets</u>. Engines and accessories shall be preserved in accordance with MIL-E-10062, level A, type I or type II, method I or II, as applicable. All openings into the engines and accessories, including air intake and exhaust, for engines preserved method I, shall be sealed with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II.
- 3.3.1.6.2 <u>Gas turbine engines</u>. Unless otherwise specified (see 6.2), or recommended by the engine manufacturer, gas turbine engines shall be preserved as specified herein. The lubricating system shall be filled with regular operating oil as recommended in the end item specification or by the manufacturer. Start engine and circulate the lubricating oil through the system. Drain fuel system. If the generator set weighs less than 1,000 lbs and will be packed in a container, the lubricating oil shall be drained from the engine. A tag conforming to UU-1-81, type A, shall be attached in a conspicuous location indicating: "LUBRICATION SYSTEM DRAINED. REFILL WITH LUBRICATING OIL PRIOR TO OPERATING ENGINE." Openings into the engines shall be sealed with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II, or covered with waterproof barrier material conforming to PPP-B-1055, class E-1 or E-2, secured in place with tape sepcified herein. Gas turbine engines in generator sets to be preserved, submethod IIa in accordance with MIL-P-116, shall be preserved as specified above except openings shall not be sealed.

- 3.3.1.6.3 <u>Auxiliary fuel lines</u>. The auxiliary fuel lines for gasoline or diesel engines shall be flushed with type P-9, the same as the engine fuel lines, and the end sealed with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II. Coil to a minimum safe diameter and secure with cotton rope or twins. Place in toolbox or in a protected location on the generator set.
- 3.3.1.7 <u>Supplemental equipment</u>. Unless otherwise specified (see 6.2), supplemental equipment shall be preserved as specified herein.

3.3.1.7.1 Winterization kits.

- 3.3.1.7.1.1 <u>Fuel burning and electric winterization kits and fuel burning and electric auxiliary winterization kits</u>. Dry charged batteries shall remain in the container furnished. All components of such complete winterization kit shall be preserved together in accordance with MIL-P-116, submethed IIb. The inner container shall be a close-fitting box conforming to PPP-B-640, class I, style E. The outer container shall be a close-fitting box conforming to PPP-B-601, overseas type. The inner faces of the outer container sides, ends, bottom, and top shall be covered with fiberboard conforming to PPP-F-320, class weather-resistant. Strapping shall conform to QQ-S-781, class I, types I or IV, finish A or B.
- 3.3.1.7.2 <u>Automatic power transfer panels</u>. Each automatic power transfer panel shall be preserved in accordance with MIL-P-116, submethed IIb. Interconnecting cables shall be coiled and the coils secured with cotton rope or twins. The cables for each panel shall be packaged in the inner container with the panel. The inner container shall be a close-fitting box conforming to PPP-B-640, class I, style E for the 50/60 Hertz (Hz) panel, or PPP-B-636, domestic type, style optional for 400 Hz panel. The outer container for the 50/60 and 400 Hz panels shall be a close-fitting box conforming to PPP-B-601, overseas type, or MIL-B-26195, type II, style and class optional with plywood panels and rubbing strips. The inner faces of the outer container sides, ends, bottom, and top shall be covered with fiberboard conforming to PPP-f-320, class weather-resistant. Strapping shall conform to QQ S-781, class I, type I or IV, finish A or B.

3.3.1.7.3 Load bank. Preservation is not required.

3.3.1.7.4 Remote control box. Each remote control box shall be preserved in accordance with MIL-P-116, submethods IIa or IIb. When a submethod IIa is used, the remote control box shall be secured through the barrier material to the base of the shipping container. The shipping container shall conform to PPP-B-601, overseas type, or MIL-B-26195, type II, style and class optional, with plywood panels and rubbing strips. For submethod IIb the inner container shall be a close-fitting box conforming to PPP-B-636, domestic type, style optional. The outer container shall be a close-fitting box conforming to PPP-B-601, overseas type. The inner faces of the outer container sides, ends, bottom, and top shall be covered with fiberboard conforming to PPP-F-320, class weather-resistant. Strapping shall conform to QQ-S-781, class I, type I or VI, finish A or B.

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- 3.3.1.7.5 Wheel mounting assembly kit. Unprotected metal surfaces of the towing tongue, brake cables, tie rods, axles, brake hand lever, and wheels, requiring a contact preservative in accordance with MIL-P-116, shall be coated with type P-I preservative. Grease seals shall be preserved together in accordance with MIL-P-116, submethod IC-I. Bearings shall be coated with type P-II preservative and preserved in accordance with MIL-P-116, submethod IC-I. Nuts, cotter pins, and washers shall be preserved in accordance with MIL-P-116, submethod IC-I. Interior surfaces of brake drums and hubs shall be coated with primer conforming to TI-P-664. Care shall be exercised to prevent primer from contacting brake lining.
- 3.3.1.8 <u>Air compressors</u>. The air compressor and air compressor components shall be preserved in accordance with level A of MIL-C-3600.
- 3.3.1.9 <u>Radiator fronts</u>. Uncrated sets shall have radiator fronts covered with waterproofed barrier conforming to PPP-B-1055, class E-2 or H-1, hard-board or 1/4-inch plywood, secured with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II.
- 3.3.1.10 <u>Housings</u>. All hoods and doors shall be secured. Uncrated or open type crated sets shall have all vents, louvers, and other openings in generator set housings, except openings at the bottom of the generator set where air flows over or through the frame structure, shall be sealed with tape conforming to PPP-1-60, type IV; MIL-1-22085, type II; or covered with waterproofed barrier conforming to PPP-B-1055, class E-2 or H-1, hardboard or 1/4-inch plywood, secured with tape as specified herein.
- 3.3.1.11 <u>Windows</u>. Unless otherwise specified (see 6.2), the glass in windows shall be protected with hardboard or 1/4-inch plywood secured in place with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II.
- 3.3.1.12 <u>Cabinet doors and access panels inside generator housings</u>. Interior surfaces of hinges shall be coated with type P-7 or P-9 preservative. In addition to mechanical locks or catches, secure doors and panels with steel strapping conforming to QQ-S-781, class I, type I, finish A or B, size optional or tape conforming to PPP-1-97, type II. When steel strapping is used fiberboard shall be placed under the strapping to prevent damage to adjacent surfaces.
- 3.3.1.13 <u>Hinges, latches and other features</u>. Interior surfaces of hinges, latches, and other features of housings an toolboxes shall be coated with type P-7 or type P-9 preservative.
- 3.3.1.14 <u>Dry charged batteries and battery cables</u>. Dry charged batteries, except those for winterization kits (see 3.3.1.7.1.1), shall be placed and secured in the battery compartment. Batteries, except those in method II packs, shall be moisture sealed in a manner that the batteries cannot be activated without destroying the seals. For method II packs, the batteries shall be left open for ventilation into the interior surfaces of the batteries. Fill caps, if removed from the batteries, shall be secured to

the batteries with tape as specified herein. The battery cables shall be disconnected and secured to the battery box or compartment with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II.

- 3.3.1.15 <u>Electrolyte</u>. Electrolyte, when furnished, shall be preserved and packed in accordance with level A requirements of 0-S-801. Unless otherwise specified (see 6.2), the packed electrolyte shall be shipped separately from, but at the same time, as the generator sets and winterization kits.
- 3.3.1.16 <u>Paralleling cables</u>. The paralleling cables, when furnished, shall be coiled to a minimum safe diameter and secured with cotton tape or twins. The paralleling cables shall be placed inside the storage compartment, if space is available, or within the generator housing in a protected location.
- 3.3.1.17 <u>Hydraulic fluid system (except hydraulic brakes)</u>. When specified (see 6.2), the hydraulic tank and filters of hydraulic systems of generators sets, if equipped, shall be drained of fluid. Replace drain plug. A tag conforming to UU-1-81, type A, shall be attached in a conspicuous location indicating: "HYDRAULIC SYSTEM DRAINED. REFILL WITH APPROVED HYDRAULIC FLUID BEFORE OPERALING."
- 3.3.1.18 <u>Fire extinguishers</u>. Unpainted exterior ferrous metal surfaces of the fire extinguishers shall be coated with type P-1 preservative. For mobile, unboxed, uncrated, or open type crated shipments, the fire extinguishers shall be individually placed in a fiberboard box conforming to PPP-B-636, W5c or W6c and the box waterproof sealed in accordance with the appendix to the box specification, method V. For boxed and sheathed crated shipments, the fire extinguisher shall be placed in the mounting bracket and secured.
- 3.3.1.19 <u>Trailer chassis</u>. Trailer chassis shall be preserved in accordance with MIL-SID-281, level A, for mobile shipments.
- 3.3.1.20 <u>Repair parts</u>. Unless otherwise specified herein, the repair parts shall be preserved in accordance with level A of MIL R-196 and MIL-E-16298. For parts not specifically covered in MIL-R-196 or MIL-E-16298, an applicable submethod of preservation in MIL-P-116 shall be used. When specified (see 6.2), the preservative application criteria and applicable method(s) of preservation contained in MIL-P-116 shall be used to preserve the repair parts, unless detailed requirements are specified by the procuring activity.
- 3.3.1.21 <u>Maintenance tools</u>. Maintenance tools shall be preserved in accordance with level A of PPP-P-40.
- 3.3.1.22 <u>lechnical publications</u>. Technical publications for each generator set shall be preserved in accordance with MIL-P-116, submethods IC-1 or IC-2, and placed in the document compartment, if equipped, or in the toolbox or consolidation pack with other components.

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- 3.3.1.23 Consolidation.
- 3.3.1.23.1 For boxed sets. The preserved repair parts and maintenance tools shall be consolidated together in a minimum number of sacks conforming to PPP-S-30, type II or fiberboard boxes conforming to PPP-B-636, W5c or W6c. The boxes shall be closed and sealed as specified for method IV in the appendix to the box specification. The size and number of sacks or boxes shall be determined by the available space to secure the container(s) within the confines of the generator set.
- 3.3.1.23.2 <u>For crated and uncrated sets</u>. Disassembly and matchmarking shall be as specified for level A, except that marking on tags shall not be required to be with waterproof ink and shipping tags may be type B.
- 3.3.2 <u>Level B</u>. Unless otherwise specified (see 6.2 and 6.5), level B preservation shall be as follows:
- 3.3.2.1 <u>Disassembly and matchmarking</u>. Disassembly and matchmarking shall be as specified for level A, except that marking on tags shall be required to be waterproof ink and shipping tags may be type B.
- 3.3.2.2 <u>Cleaning, drying, and application of preservatives</u>. Cleaning, drying, and application of preservatives shall be as specified for level A.
- 3.3.2.3 <u>Exterior surfaces</u>. Exterior surfaces shall be coated with preservatives as specified for level A, except unpainted information plates shall not be coated with varnish.
- 3.3.2.4 <u>Generator sets</u>. Openings that will permit direct entrance of dirt or water into electrical windings in the machine enclosures shall be sealed with tape conforming to PPP-1-60, type IV or MIL-1-22085, type II. A tag shall be attached in a conspicuous location indicating "REMOVE TAPE PRIOR TO OPERATION OF THE GENERATOR SET." The openings through which cooling air flows over or through the frame structure, but not over the electrical windings, shall not be taped. Contact preservative shall be applied as specified herein.
- 3.3.2.4.1 Shafts and couplings. Shafts and rigid couplings shall have unprotected ferrous metal surfaces coated with type P-1 or P-19 preservative. Flexible couplings shall be coated with type P-11 and overwrapped with barrier material conforming to MIL-B-121, grade A, secured in place with tape conforming to PPP-1-60, type IV.
- 3.3.2.4.2 <u>Commutators, brushes, and coils.</u> Preservation shall not be applied to the commutators, brushes, or coils.
- 3.3.2.4.3 <u>Collector rings</u>. On steel collector rings, the brushes shall be raised and the exposed steel collector ring surfaces shall be coated with type P-2 preservative. After coating with preservative, the steel collector rings shall be covered with barrier material conforming to MIL-B-121, grade A, or a piece of barrier material shall be inserted between each brush and the collector ring. The brushes shall be replaced and the springs adjusted. A

tag shall be attached in a conspicuous location indicating: "REMOVE PACKAGING MATERIAL PRIOR TO OPERATION OF GENERATOR SET." Preservatives or barrier material are not required for bronze or brass collector rings.

3.3.2.5 <u>Engines</u>.

- 3.3.2.5.1 <u>Gasoline and diesel engines</u>. The engine and engine accessories shall be preserved in accordance with MIL-E-10062, level A, type I or type II, method I, as applicable.
- 3.3.2.5.2 <u>Gas turbine engine</u>. Unless otherwise specified (see 6.2), gas turbine engines shall be preserved as specified in 3.3.1.6.2.
- 3.3.2.6 <u>Auxiliary fuel lines</u>. Auxiliary fuel lines shall be coiled to a minimum safe diameter secured with cotton rope or twins and placed in the toolbox or in a protected location of the generator set.
- 3.3.2.7 <u>Supplemental equipment</u>. Unless otherwise specified (see 6.2), supplemental equipment shall be preserved as specified for level A, except the outer container shall be domestic type.
- 3.3.2.8 <u>Air compressors</u>. The air compressor and air compressor components shall be preserved in accordance with level B of MIL-C-3600.
- 3.3.2.9 <u>Radiator fronts</u>. When specified (see 6.2), radiator fronts on uncrated generator sets shall be covered as specified for level A.
- 3.3.2.10 <u>Housings</u>. Hoods, doors, and openings shall be secured and covered as specified for level A.
- 3.3.2.11 <u>Windows</u>. Where specified (see 6.2), the glass in windows for level B shall be protected as specified for level A (see 3.3.1.11).
- 3.3.2.12 <u>Cabinet doors and access panels inside generator housings</u>. Secure doors and panels as specified for level A. No preservative is required on hinges.
 - 3.3.2.13 Hinges, latches, and other features. Preservatives not required.
- 3.3.2.14 <u>Dry charged batteries and battery cables</u>. Dry charged batteries shall be secured in the battery carrier, moisture sealed, and the battery cables secured to the battery box or compartment, as specified for level A.
- 3.3.2.15 <u>Electrolyte</u>. Electrolyte shall be preserved and packed as specified for level A, except unless otherwise specified (see 6.2), the electrolyte shall be shipped separately from, but at the same time as the generator sets and winterization kits.
- 3.3.2.16 <u>Paralleling cables</u>. Paralleling cables shall be coiled and secured with cotton tape or twins and stowed within the storage compartment or the generator housing.

- 3.3.2.17 <u>Hydraulic fluid systems (except hydraulic brakes)</u>. When specified (see 6.2), the hydraulic tank and filters shall be drained and tagged as specified for level A.
- 3.3.2.18 <u>Fire extinguishers</u>. The fire extinguishers shall be secured in the mounting bracket.
- 3.3.2.19 <u>Trailer chassis</u>. The trailer chassis shall be preserved in accordance with level B unboxed (mobile) requirements of MIL-STD-281.
- 3.3.2.20 <u>Repair parts, maintenance tools, and technical publications</u>. Repair parts, maintenance tools, and technical publications shall be preserved as specified for level A.
- 3.3.2.21 <u>Consolidation</u>. The preserved repair parts, maintenance tools, disassembled components, and accessories shall be consolidated as specified for level A, except the boxes shall be class domestic or class I.
- 3.3.2.22 <u>Unit packing</u>. The 0.5 kW and 1.5 kW generator sets shall be unit packed as specified herein. Generator sets over 1.5 kW shall not require unit packing.
- 3.3.2.22.1 <u>0.5 kW generator set</u>. Each 0.5 kW generator set preserved in accordance with the applicable requirements in 3.3.2.1 through 3.3.2.21, shall be unit packed a close fitting box conforming to PPP-B-636, V3c, style RSC. Strapping shall not be required. The box shall be waterproof sealed in accordance with the appendix to the box specification, method V.
- 3.3.2.22.2 <u>1.5 kW generator sets</u>. Each 1.5 kW generator set preserved in accordance with the applicable requirements in 3.3.2.1 through 3.3.2.21, shall be unit packed in a close-fitting box conforming to PPP-B-636, V13c, style RSC. Strapping shall not be required. The box shall be waterproof sealed in accordance with the appendix to the box specification.
- 3.3.3 Level C. Unless otherwise specified herein or in the contract, generator sets, accessories, repair parts, maintenance tools, and supplemental equipment shall be preserved to afford protection against deterioration and damage during shipment and handling from the supply source to the first receiving activity. The contractor may use his standard practice when it meets these requirements. When storage compartments are provided on the generator set, the accessories and maintenance tools shall be placed inside the compartment and blocked and braced to prevent movement. The technical publications shall be placed in the document compartment or in the toolbox on the generator set. When 0.5 kW and 1.5 kW generator sets, preserved level C are to be packed together in multiple quantities, for level A or B (see 3.4.1.1), each generator set, with repair parts, maintenance tools, technical publications, and accessories, shall as a minimum, be packed in a close-fitting box conforming to PPP-B-636, type CF, class domentic variety SW, style RSC, grade 200 for 0.5 kW, and grade 350 for the 1.5 kW. Strapping shall not be required. When specified (see 6.2), gasoline and diesel engine fuel systems, combustion chambers, valves, and coolant systems shall be

preserved in accordance with level A requirements of MIL-E-10062, preparation type I, method I, or type II, method I, as applicable. Gas turbine engines shall be preserved in accordance with the contractor's standard practice (see 6.7).

- 3.4 Packing. Packing shall be level A, B, or C, as specified (see 6.2).
- 3.4.1 Level A.
- 3.4.1.1 <u>Generator sets not exceeding 200 lbs</u>. Unless otherwise specified (see 6.2), each 0.5 kW or 1.5 kW generator set shall be packed in a close-fitting box conforming to PPP-B-601, overseas type. Strapping shall be zinc coated. When specified (see 6.2), generator sets of like description shall be packed together in a close-fitting box conforming to PPP-B-601, overseas type, in quantities not to exceed the weight limitations of the box. Strapping shall conform to QQ-S-781, class I, type I or IV, finish A or B.
- 3.4.1.2 <u>Generator sets 200 lbs to 1,000 lbs</u>. Unless otherwise specified herein, each complete 3 kW, 5 kW, and 10 kW generator set shall be packed in accordance with figures 1 and 2, as specified for level A. When a generator excess 1,000 lbs, it shall be packed in accordance with 3.4.1.3. When specified (see 6.2), the generator set(s) shall be packed in boxes conforming to PPP-B-601, overseas type or each complete generator set exceeding 1,000 lbs shall be packed in a box conforming to MIL-E-26195, type II, style A or B, class optional, with plywood superstructure and rubbing strips.
- 3.4.1.3 <u>Generator sets 1,000 lbs to 20,000 lbs (except highway type trailer mounted unit(s)</u>. Each complete generator set shall be packed in a crate conforming to MIL-C-104, type I or II, class 2, style A. The contents shall be anchored, blocked, and braced in accordance with the crate specification and MIL-STD-1186. When specified (see 6.2), for unit(s) not preserved by submethod IIa, the steel base of the generator set shall be utilized as the base of the container, and a housing consisting of ends, sides, and top constructed in accordance with MIL-C-104, type I, class 2, shall be provided to house the generator set. The housing shall be secured directly to the steel base of the generator set. When generator sets are preserved and packaged by submethod IIa, and an internal type humidity indicator is utilized, the crate shall be provided with an inspection door located so as to allow access to the humidity indicator.
- 3.4.1.4 <u>Generator sets, skid mounted, exceeding 20,000 lbs</u>. The generator sets shall be shipped uncrated. Consolidated packs, disassembled components, accessories, and repair parts for each generator set, when practicable, shall be placed within the generator set housing and secured to prevent movement.
- 3.4.1.5 <u>Generator sets</u>, <u>highway type</u>, <u>trailer mounted</u>. Generator sets mounted on highway type trailers shall be shipped uncrated. Consolidated packs, disassembled components, accessories, and repair parts for each generator set shall be positioned and secured to the generator set in such a manner as not to interfere with towing or lifting the generator set with slings. When specified (see 6.2), a housing, consisting of ends, sides, and

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top constructed in accordance with PPP-B-601, overseas type or MIL-C-104, type I, class 2, shall be provided to house the generator set. The housing shall be secured to the generator base or to the trailer. $\underline{\text{CAUTION}}$: Landing gears on trailers are subject to damage during shipment. Do not ship trailer resting on landing gear.

3.4.1.6 Supplemental equipment.

- 3.4.1.6.1 <u>Winterization kits, automatic power transfer panels, and remote control boxes</u>. The items preserved as specified in 3.3.1.7 for level A do not require packing.
- 3.4.1.6.2 <u>Load bank</u>. Each load bank shall be secured to the base of a crate conforming to MIL-C-104, type I or II, class 2 style A. Blocking, bracing, and anchoring of the load bank within the crate shall be in accordance with the crate specification and MIL-STD-1186. Closure of the crates shall be in accordance with the crate specification. Strapping shall conform to QQ-S-781, class I, type I or IV, finish A or B.
- 3.4.1.6.3 Wheel mounting assembly kit. The preserved components of each complete wheel mounting assembly kit shall be packed in a close-fitting, cleated-plywood box conforming to PPP-B-601, overseas type. Blocking, bracing, anchoring, and cushioning shall be in accordance with MIL-STD-1186. Strapping shall conform to QQ-S-781, class I, type I or IV, finish A or B.

3.4.2 Level B.

- 3.4.2.1 Generator sets not exceeding 200 lbs. Unless otherwise specified (see 6.2), each 0.5 kW or 1.5 kW generator set, preserved as specified in 3.3 for level A or B, shall be prepared for shipment without overpacking. Strapping of boxes shall be in accordance with the appendix to PPP-B-636. When 0.5 kW or 1.5 kW generator sets are preserved as specified in 3.3 for level C each set shall be packed in a close-fitting box conforming to PPP-B-636, grade V3c, style RSC for the 0.5 kW, or grade V13c, style RSC for the 1.5 kW. The box shall be waterproof sealed with tape as specified in the appendix to the box specification, method V. When specified (see 6.2), generator sets of like description, preserved as specified in 3.3 shall be packed together in close-fitting box conforming to PPP-B-640, class 2, style E. The quantities to packed in the box shall be as specified (see 6.2). The box shall be waterproof sealed with tape and reinforced as specified in the appendix to the box specifications.
- 3.4.2.2 <u>Generator sets 200 lbs to 1,000 lbs</u>. Each complete 3 kW, 5 kW, and 10 kW generator set shall be packed in a box conforming to PPP-B-601, domestic type or PPP-B-621, class 1. When a generator set exceeds 1,000 lbs, it shall be packed in accordance with 3.4.2.3. When specified (see 6.2), each complete 3 kW, 5 kW, and 10 kW generator set shall be packed in accordance with figures 2 and 3 as specified for level B; or, each complete generator set exceeding 1,000 lbs shall be packed in a box conforming to MIL-B-26195, type I, with plywood superstructure and rubbing strips.

- 3.4.2.3 <u>Generator sets 1,000 lbs to 16,000 lbs (except highway type)</u>, trailer mounted units. Each complete generator set shall be packed in a crate conforming to MIL-C-104, type I or II. The contents shall be anchored, blocked, and braced in accordance with the crate specification and MIL-SID-1186. Strapping shall be in accordance with the crate specification and appendix thereto. The contents of open crated conforming to MIL-C-3774, shall be shrouded in accordance with the appendix to the crate specification. When specified (see 6.2), a wood housing shall be provided over the generator set as specified in 3.4.1.3 for level A.
- 3.4.2.4 Generator sets, skid mounted, exceeding 16,000 lbs. The generator sets shall be shipped uncrated or as specified by the procurement activity. Consolidated packs, disassembled components, accessories, and repair parts for each generator set, when practicable, shall be placed within the generator set housing and secured to prevent movement.
- 3.4.2.5 <u>Generator sets</u>, <u>highway type</u>, <u>trailer mounted</u>. Generator sets mounted on highway type trailers shall be shipped uncrated. Consolidated packed disassembled components, accessories, and repair parts for each generator set shall be positioned and secured to the generator set in such a manner as not to interfere with towing or lifting the generator set with slings. When specified (see 6.2), a wood housing shall be provided over the trailer mounted generator sets as specified in 3.4.1.5 for level A. The trailer shall not be shipped resting on the landing gear (see 3.4.1.5).
 - 3.4.2.6 Supplemental equipment.
- 3.4.2.6.1 <u>Winterization kits, automatic power transfer panels, and remote control boxes</u>. Items preserved as specified in 3.3 for levels A or B do not require packing.
- 3.4.2.6.2 <u>Load bank</u>. Each load bank shall be packed as specified for level A, except that the crate shall conform to MIL-C-3774, type I or II, and the load bank shall be protected with a shroud. Anchoring and waterproofing shall be in accordance with the crate specification and MIL-SID-1186.
- 3.4.2.6.3 Wheel mounting assembly kit. Packing shall be as specified for level A. except that the box shall be domestic type.
- 3.4.3 <u>Level C</u>. The complete generator sets and supplemental equipment shall be packed in a manner which will insure arrival at destination in satisfactory condition and which will be acceptable to the carrier at lowest rates. Containers and packing shall comply with Uniform Freight Classification rules or National Motor Freight Classification rules. When specified (see 6.2), each 3 kW, 5 kW, or 10 kW set shall be packed in accordance with figure 2 and 3, as specified for level C. For trailer mounted generator sets, the trailer shall not be shipped resting on the landing gear.
- 3.5 Marking. Marking shall be in accordance with MIL-STD-129. In addition to any special marking required in the contract or order, the

following shall be stenciled on one side and one end of each shipping container packed in accordance with figure 3: "DO NOT STACK. CONTAINER WILL NOT SUPPORT SUPERIMPOSED LOAD."

- 3.6 <u>Depreservation quide</u>. Two depreservation guides shall be furnished. One shall be preserved by submethod IC-I in accordance with MIL-P-116, and the bag marked to indicate DEPRESERVATION GUIDE. The preserved guide shall be secured in a conspicuous location on the inside of the shipping container or on the equipment. The other copy shall be placed in the document compartment or the toolbox with the technical publications. Unless otherwise specified (see 6.2 and 6.6), DA form 2258 Depreservation Guide for Vehicles and Equipment shall be used.
- 3.7 <u>Workmanship</u>. All operations and processes involved in accomplishing the requirements of this specification shall be in accordance with the highest grade practices associated with this type of work.
 - 4. QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.
- 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practic to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.
- 4.1.2 <u>Material inspection</u>. The contractor is responsible for ensuring that supplies and materials used are manufactured, examined, and tested in accordance with referenced specification and standards.
- 4.2 <u>Classification of inspections</u>. Inspections shall be classified as follows:
 - a. First article inspection (see 4.3).
 - b. Quality conformance inspections (see 4.4).

- 4.3 First article inspection. The first article inspection shall be performed on one complete pack when a first article is required (see 3.1 and 6.2). This inspection shall include the examination of 4.3.1 and the tests of 4.3.2. The first article may be either a first production item or a standard production item from the supplier's current inventory provided the item meets the requirements of the specification and is representative of the design, construction, and manufacturing technique applicable to the remaining items to be furnished under the contract.
- 4.3.1 <u>Examination</u>. The first article pack shall be examined for the defects in 4.4.4. One or more defects shall be cause for rejection.
- 4.3.2 <u>Tests</u>. When specified (see 6.2), the first article pack for level A and B packs shall be tested in accordance with 4.3.2.1 or 4.3.2.2, as applicable. After satisfactorily completing the first article pack tests and all specified requirements have been met, a test report shall be prepared by the contractor and three copies of the report shall be furnished to the procuring activity.
- 4.3.2.1 <u>Boxed generator sets (level A or B)</u>. Boxed generator sets not exceeding 200 lbs shall be subjected to the free-oil drop test in accordance with FED-SID-101, method 5007, procedure D. Boxed generator sets exceeding 200 lbs, but not exceeding 1,000 lbs, shall be subjected to the penduleum impact test in accordance with FED-SID-101, test 5012 or the incline test in accordance with test method 5023.
- 4.3.2.2 <u>Crated generator sets (level A or B)</u>. Crated generator sets shall be subjected to the guided-impact test (railroad car) specified in MIL-SID-1186, appendix A. The car shall strike a string of five empty cars, with draft gear extended and the brakes set, at a speed of not less than 10 miles per hour (mph) and not more that 11 mph. Packs not exceeding 9.5 feet in length shall have one impact applied to each end and each side of the pack. Packs exceeding a 9.5 feet in length shall have one impact applied to each end of the pack. When it is impracticable to test in accordance with the railroad car method, the incline-impact test as specified in MIL-SID-1186 may be substituted.
- 4.3.3 <u>Failure criteria</u>. Shifting of contents, visible damage to the contents, loosening or breaking of anchoring, blocking, bracing, and cushioning within the container shall constitute failure of the test and shall be cause for rejection of the first article pack.

4.4 Quality conformance inspection.

- 4.4.1 <u>Unit of product</u>. For the purpose of inspection, a completed pack prepared for shipment shall be considered a unit of product.
- 4.4.2 <u>Inspection lot</u>. All preserved, packed, and marked generator sets and supplemental equipment offered for delivery at one time shall be considered a lot for purpose of inspection.

- 4.4.3 <u>Sampling for examination</u>. Random samples of preserved, packed, and marked generator sets and supplemental equipment shall be selected from each lot in accordance with MIL-SID-105. Examination shall be based on inspection level II and an Acceptable Quality Level of 4.0 defects per hundred unit(s).
- 4.4.4 Examination. Samples selected in accordance with 4.4.3 shall be inspected for the defects listed in table I.

TABLE 1. Classification of defects.

Classification	Defects	Requirement paragraph
Major: 101	Materials, methods, or containers not as specified.	3.2, 3.3, and 3.4
102	Disassembly and matchmarking not as specified.	3.3.1.1, 3.3.1.2, and 3.3.2.2
103	Cleaning, drying, and preservatives not as specified.	3.3.1.3 and 3.3.2.2
104	Unpainted exterior ferrous metal surfaces not coated with a preservative as specified; information plates not coated with varnish for level A.	3.3.1.4 and 3.3.2.3
105	Generator sets not exceeding 200 lbs not preserved as specified.	3.3.1.5.1, 3.3.2, and 3.3.3
106	Generator sets 200 lbs to 1,000 lbs not preserved as specified.	3.3.1.5.2, and 3.3.2
107	Fully sheathed crated generator sets not preserved as specified; the generator component not preserved in accordance with the alternate method when specified for level A.	3.3.1.5.3 and 3.3.2
108	Generator sets uncrated or in open type crates not preserved as specified.	3.3.1.5.4 and 3.3.2
109	Engines not preserved as specified for levels A and B when level C is specified.	3.3.1.6, 3.3.2.5, and 3.3.3
110	Auxiliary fuel lines not preserved; ends not sealed; lines not coiled, secured or stowed as specified.	3.3.1.6.3 and 3.3.2.6

TABLE I. Classification of defects. (continued)

Classification	Defects	Requirement paragraph
ווו	Winterization kits, automatic power transfer panes and remote control boxes not preserved as specified; containers not lined with fiberboard.	3.3.1.7.1.1 3.3.1.7.2, 3.3.1.7.4, and 3.3.2.7
112	Components of wheel mounting assembly kit not preserved as specified.	3.3.1.7.5 and 3.3.2.7
113	Air compressors not preserved in accordance with level A or B of MIL-C-3600.	3.3.1.8 and 3.3.2.8
114 	Front of radiators and glass in windows not covered or protected as specified for level A and B.	3.3.1.9, 3.3.1.11, 3.3.2.9, and 3.3.2.11
115	Hoods and doors not secured; openings into housings not seald or covered as specified.	3.3.1.10 and 3.3.2.10
116 	Cabinet doors and access panels not preserved or secured as specified; fiber-board not placed under steel strapping.	3.3.1.12 and 3.3.2.12
117	Hinges, latches, and other features not coated with a preservative as specified for level A.	3.3.1.13
118 	Batteries not secured in the battery compartment; battery cables not disconnected and secured to the battery box or compartment as specified; batteries not moisture sealed or filler caps not removed and secured to the battery as specified.	3.3.1.14 and 3.3.2.14
 119 	Electrolyte not preserved and packed or shipped separate as specified.	3.3.1.15 and 3.3.2.15
120	Paralleling cables not coiled, the coils not secured, or the cables not stowed as specified.	3.3.1.16 and 3.3.2.16
 121 	Hydraulic fluid systems not drained and tagged with specified.	3.3.1.17 and 3.3.2.17

TABLE 1. Classification of defects. (continued)

Classification	Defects	Requirement paragraph
122	Fire extinguishers not coated with a preservative; placed in fiberboard box or secured in the mounting bracket as specified.	3.3.1.18 and 3.3.2.18
123	Trailer chassis not preserved as specified.	3.3.1.19 and 3.3.2.19
124	Repair parts, maintenance tools, and technical publications not preserved as specified. Technical publication not stowed in the document compartment of the toolbox.	3.3.1.20, 3.3.1.21, 3.3.1.22, 3.3.2.20, and 3.3.3
125	Consolidation not as specified.	3.3.1.23, 3.3.2.21, and 3.3.3
126	Packing for levels A or B, not as specified. Containers not the proper type, class or styles, or exceed the specified weight limitations. Anchoring, blocking, and bracing is inadequate and not as specified. Contents not waterproofed with shroud. Strapping not as specified. Wood housings not provided for trailer mounted generator set when specified; trailer shipped resting on landing gear.	3.4.1 and 3.4.2
127	Packing for level C not provided, when specified. Irailer shipped resting on landing gear.	3.4.3
128	Marking illegible, incorrect, incomplete, or otherwise not as specified.	3.5
129	Depreservation guide not prepared or located as specified.	3.6

5. PACKAGING

This section not applicable to this specification.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

- 6.1 <u>Intended use</u>. This specification is intended to be used for the preservation, packing, and marking of generator sets, mobile, electric power and supplemental equipment, and is to be used for reference in section 5 of end item specifications, direct reference in contracts or orders, and can be used for preparing packaging data sheets or other types of packaging instructions.
- 6.2 <u>Acquisition requirements</u>. Acquisition documents must specify the following:
 - a. Title, number, and date of this specification.
 - b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
 - c. Size required (see 1.2).
 - d. When first article is required for inspection and approval (see 3.1).
 - e. If machine is required to be configured in a specific measurement system (US or SI), state required system (see 3.2.1).
 - f. If measuring and indicating devices are required to be graduated in a specific measurement system (US or SI), state required system (see 3.2.1.1).
 - g. When materials are subject to the approval of the procuring activity (see 3.2).
 - h. Level of preservation and level of packing required (see 3.3 and 3.4). Level B preservation (see 3.3.2 and 6.5) is intended to provide economical but limited protection and should be specified only when the generator sets and supplemental equipment will be shipped in a covered carrier and held in covered storage for an indefinite period.
 - i. If supplemental equipment is to be preserved other than specified (see 3.3.1.7 and 3.3.2.7).
 - j. When sheathed crated sets are to preserved by the alternate method (see 3.3.1.5.3).
 - k. When generator set(s) mounted on trailers are to be preserved submethed IIa (see 3.3.1.5.4).
 - 1. If gas turbine engines are to be preserved other than specified (see 3.3.1.6.2 and 3.3.2.5.2).
 - m. If glass in windows are not to be protected (see 3.3.1.11 and 3.3.2.11).
 - n. If electrolyte is to be shipped other than as specified (see 3.3.1.15 and 3.3.2.15).
 - o. When hydraulic fluid system should be drained (see 3.3.1.17 and 3.3.2.17).
 - p. When repair parts are to be preserved in accordance with MIL-P-116 (see 3.3.1.20).

- q. When radiator fronts or glass in windows are to be covered or protected for level B (see 3.3.2.9 and 3.3.2.11).
- r. When gasoline and diesel engine fuel systems, combustion chambers, valves, and coolant system should be preserved for level C (see 3.3.3).
- s. When generator sets of the like description are to be packed together (see 3.4.1.1).
- t. When generator sets 200 lbs to 1,000 lbs are to be packed in boxes conforming to PPP-B-601 or when generator sets over 1,000 lbs are to be packed in boxes conforming to MIL-B-26195 (see 3.4.1.2).
- When generator sets 200 to 1,000 lbs are to be packed in accordance with figures 2 and 3; or, when generator sets over 1,000 lbs are to packed in boxes conforming to MIL-B-26195 (see 3.4.2.2).
- v. When a wood housing is to be provided over the generator sets (see 3.4.1.3 and 3.4.2.3).
- When a wooden housing is required over the trailer mounted generator sets (see 3.4.1.5 and 3.4.2.5).
- x. If 0.5 kW or 1.5 kW generator sets are to overpacked (see 3.4.2.1).
- y. When generator sets of like description are to be packed together and the quantity to be packed in each container (see 3.4.2.1).
- Z. When 3 kW, 5 kW, or 10 kW generator sets are to be packed for level C in accordance with figures 2 and 3 (see 3.4.3).
- aa. When other than DA form 2258 is to be used (see 3.6).
- bb. When a first article pack test is required (see 4.3.2)
- 6.3 <u>Data requirements</u>. When this specification is used in an acquisition for data to be delivered, the data requirements should be developed as specified by an approved Data Item Description (DD form 1664) and delivered in accordance with the approved Contract Data Requirements List (CDRL), incorporated into the contract. When the provisions of DOD FAR Supplement, Part 27, Sub-Part 27.475-1 (DD form 1423) are invoked and the DD form 1423 is not used, the data should be delivered by the contractor in accordance with the contract or purchase order requirements.
- 6.4 <u>First article</u>. When a first article inspection is required, the item will be tested and should be a first article sample or it may be a standard production item from the contractor's current inventory as specified in 4.3. The first article should consist of one unit. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examination, test, and approval of the first article.
- 6.5 <u>Level B preservation</u>. Level B preservation (see 3.3.2), has been developed for use by the Army and Air Force for the specific conditions in 6.2(d). For Navy procurements, details of level B preservation, when required, should be developed at time of procurement when all conditions are known.
- 6.6 <u>Depreservation guides</u>. The contracting officer should arrange to furnish the necessary copies of DA form 2258, when requested by the contractor.

- 6.7 <u>Fuel systems</u>. When shipping generator sets by military aircraft, the fuel system of gasoline, diesel and gas turbine engines should be drained and purged as specified in AFM 71-4, DSAM 4145.3, TM 38-250, NAVSUP PUB 505, and MCO 4030.19. Additional information for draining and purging fuel tanks is contained in MIL-HDBK-758, 1.0. 35-1-4, and T.O. 38-1-5.
- 6.8 Environmental pollution preventive. Disposal methods of packaging materials, to prevent environmental pollution, are contained in MIL-HDBK-742, the material specification, or may be obtained from the preparing activity of the applicable material specification.
 - 6.9 Subject term (key word) listing.

Electrolyte Generator Marking Packing Preservation

6.10 <u>Changes from previous issue</u>. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Preparing Activity:

(Project PACK-0851)

Navy - YD

Custodians:

Army - ME

Navy - YD

Air Force - 99

Review Activities:

Army - SM, CR

Navy - MC

DLA - GS

Air Force - 43, 69

User Activities:

Navy - AS, EC

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