

AA-F-00363C
December 1, 1990
 INTERIM REVISION TO
 AA-F-363B
 June 2, 1969

FEDERAL SPECIFICATION

FILING CABINET, SECURITY, MAPS AND PLANS, GENERAL FILING, AND STORAGE

This Interim Federal Specification was developed by the Furniture Commodity Center, Federal Supply Service, General Services Administration, Washington, D.C., 20406 based upon currently available technical information. It is recommended that Federal agencies use this document in procurement and forward any recommendations for changes to the preparing activity at the address shown above.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers uninsulated, security filing cabinets which are designed to conform to the standards for physical security as set forth in the Information Security Oversight Office Directive No. 1, governing the classification, declassification, downgrading and safeguarding of national security information. The cabinets provide protection against unauthorized entry for the period of time specified in 1.2.1.

1.2 Classification.

1.2.1 Classes, types, and sizes. The cabinets furnished under this specification shall be of the following classes, types, and sizes, as specified (see 6.2).

Class 5 - Resistant to 20 man-hours surreptitious entry, 30 man-minutes covert entry, and 10 man-minutes forced entry.

Type I With hangers and suspensions.
 Size I

Type II Without hangers and suspensions.
 Size I
 Size II
 Size IV

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Class 6 - Resistant to 20 man-hours surreptitious entry, 30 man-minutes covert entry. No forced entry requirements.

Type I - With hangers and suspensions.
Size I.

Type II - Without hangers and suspensions.
Size I.
Size III.

Type III - With drawers for flat filing.
Size V.

1.2.2 Styles, class 5. The class 5, type II, size II cabinets shall be of the following styles, as specified (see 6.2).

Style A - With channel base assembly.
Style B - Without channel base assembly.

1.2.3 Design of combination lock. The combination locks on cabinets furnished under this specification shall be of the following designs, as specified (see 6.2).

Design H - Hand change design.
Design K - Key change design.

2. APPLICABLE DOCUMENTS

2.1 Specifications and standards. The following specifications and standards of the issues in effect on the date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

QQ-C-320 -	Chromium Plating (Electrodeposited).
QQ-P-416 -	Plating, Cadmium (Electrodeposited).
QQ-Z-325 -	Zinc Coating, Electrodeposited, Requirements for.
TT-C-490 -	Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.
PPP-B-585 -	Boxes, Wood, Wirebound.
PPP-B-591 -	Boxes, Fiberboard, Wood-Cleated.
PPP-B-601 -	Boxes, Wood, Cleated-Plywood.
PPP-B-621 -	Boxes, Wood, Nailed and Lock-Corner.
PPP-B-640 -	Boxes, Fiberboard, Corrugated, Triple Wall.
PPP-B-1055 -	Barrier Material, Waterproofed, Flexible.

- PPP-C-650 - Crates, Wood, Open and Covered.
 PPP-T-60 - Tape: Pressure-Sensitive Adhesive,
 Waterproof, For Packaging.

Federal Standards:

- Fed. Std. No. 123 - Marking for Domestic Shipment (Civilian
 Agencies).
 Fed. Std. No. 595 - Colors.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402.)

(Single copies of this specification and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, D.C., Atlanta, Chicago, Kansas City, Mo., Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, Washington.)

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specifications:

- MIL-L-10547 - Liners, Case and Sheet, Overwrap,
 Water-Vaporproof, or Waterproof, Flexible.

Military Standards:

- MIL-STD-105 - Sampling Procedures and Tables for Inspection
 by Attributes.
 MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following document forms a part of this specification to the extent specified herein.

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Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

Underwriters' Laboratories, Inc. (UL) Publication:

No. 768 - Standard for Combination Locks.

(Copies may be obtained from Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago, Illinois 60611.)

3. REQUIREMENTS

3.1 Qualification. The security filing cabinets furnished under this specification shall be products which have been tested, and have passed the qualification tests specified in section 4, and have been listed on or approved for listing on the applicable qualified products list (QPL).

3.1.1 Qualification suspension.

3.1.1.1 Development of entry techniques. The cabinets qualified under this specification will be continually tested by the Government during the term of qualification to determine whether the security protection afforded by the cabinets should or can be improved. If, at any time, entry techniques are developed within the framework of the specification which affect a cabinet's security integrity, it shall be removed from the QPL and the manufacturer will be required to modify the product to the extent necessary to defeat the techniques and have the cabinet requalified.

3.1.1.2 Change in specification requirements. This specification will be continually reviewed by the Government to determine whether specification requirements should or can be changed to improve product quality. If, at any time, requirements are changed, and such changes affect the qualification status of a qualified cabinet, it shall be removed from the QPL and the manufacturer will be required to modify the product to the extent to comply with specification changes and have the cabinet requalified.

3.2 Material. Material used in the cabinet's construction shall be as specified herein. Material not definitely specified shall be of good commercial quality, suitable in all respects for the purpose intended.

3.2.1 Steel. Steel used in the cabinet shall be of a type, thickness, and strength to meet all applicable requirements of this specification. Steel shall be free from rust, scale, pits, buckles, and other imperfections which might adversely affect the

appearance or the serviceability of the finished product.

3.2.2 Face hardware. Material used in the cabinet door handle and lock bolt operating handle shall be satin-finished anodized aluminum, type 430 corrosion resistant steel, brushed chromium on steel, or on die-cast zinc, brass or bronze, or electrolysis nickel coating. Chromium plating shall be as specified in 3.2.3.2.

3.2.3 Finishing materials.

3.2.3.1 Enamel and lacquer. The final coat for the cabinet shall be either an enamel of the baking type, or it may be an air-dry, textured finish, nitrocellulose lacquer or water reducible coating. The quality of the final coat and its application shall be in accordance with good commercial standards and practices. The color shall be as specified in 3.2.4.

3.2.3.2 Chromium plating. Chromium plating shall be class I, type II, of QQ-C-320.

3.2.3.3 Cadmium plating. Cadmium plating shall be in accordance with class I, type I, of QQ-P-416.

3.2.3.4 Zinc coating. Zinc coating shall be in accordance with type I, class 2, of QQ-Z-325.

3.2.4 Color of finish. The color of the finish shall be as specified (see 6.2) from the following colors:

Gray Color - No. 26134
Black Color - No. 27040
Parchment - Color No. 27769

(Sample panels of the standard color are obtainable, without charge, from the Business Service Center, General Services Administration, Federal Supply Service, Washington, D.C. 20407, or from the Business Service Center in the nearest Regional Office.)

3.3 Construction.

3.3.1 Design. The design and general appearance of the filing cabinet shall be consistent with the intended use. Type I and II cabinets shall be vertical (upright) with a single, hinged door opening forward. Type III cabinets shall be horizontal with two hinged doors. The doors for the type III cabinet shall be open sufficiently to allow drawer access from three sides. Doors shall recede into the cabinet body or fold against the cabinet sides.

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3.3.2 Assembly. The top, sides, back, bottom, and case frame members shall be assembled into a rigid unit. All welding, brazing, and mechanical attachments shall accomplish secure and rigid joints in proper alignment. Welding and brazing shall be sound without porosity. All protruding and depressed welds on the cabinets exterior shall be filled and sanded or ground smooth.

3.3.3 Dimensions.

3.3.3.1 Size I. The size I cabinet shall be of sufficient dimensions to accommodate on hangers, not less than one-thousand, 42 by 30 inch documents. One outside dimension of the cabinet shall be not more than 30 inches.

3.3.3.2 Size II, III, and IV. The size II, III and IV cabinets shall be of the dimensions specified in table I.

TABLE I. Dimensions for size II cabinet						
Size	Outside: + 1/8-inch (not including channel base or face hardware)			Inside: Minimum clear opening		
	Height	Width	Depth	Height	Width	Depth
II	43-1/2	35-3/4	26-3/16	39-5/8	31-7/8	21-1/16
III	57-1/2	22-1/2	38-5/8	49-3/4	20-5/8	35-3/8
IV	28-1/2	23-1/4	24	24-3/4	19-1/4	19-3/8

3.3.3.3 Size V. Size V cabinets shall be equipped with ten drawers. Each drawer shall be not less than 2 inches high. Drawers shall be designed to allow flat filing of 36 inch by 48 inch drawings, maps, or plans and shall include a device for holding the drawings flat in the drawer.

3.3.4 Weight. The net weight of the cabinet, including hangers and suspensions, shall not exceed the pounds per square foot of cabinet base area specified hereunder. The cabinet's base and top area shall be of the same dimensions. The weight shall be clearly and permanently marked on the cabinet base so as to be visible from the front.

Class 5 - 250 pounds per sq. ft. of base area.

Class 6 - 150 pounds per sq. ft. of base area.

3.3.5 Door(s). The cabinet shall have a hinged door(s) which shall swing outward to the open position. The door(s) shall be in perfect alignment with the door frame and shall move easily and smoothly on the hinges. The door(s) in any normal open position shall not overbalance the empty cabinet. The cabinet door(s) shall be tested as specified in 4.4.8.1.

3.3.5.1 Door handle. The door shall have a handle to provide easy and convenient operation to open and close the door. The handle may be integral with the throw-bolt mechanism. The handle shall be of any of the materials specified in 3.2.2, and of sufficient strength to withstand hard usage. Exterior surfaces shall be finished by a method to eliminate roughness and sharp edges. The handles shall be securely and firmly staked to the door in a manner to withstand hard daily usage.

3.4 Lock and locking mechanism. The cabinet shall be locked by a positive bolt mechanism, which incorporates a detent feature to hold the lock bolts in a retracted position when the door is open. A changeable combination lock shall be mounted in the door to control the locking of the entire cabinet. The lock shall be tested as an integral component of the cabinet. The lock's dial shall be of top reading design and the dial and ring shall have a standard, snap-on dust cover. At the option of the purchaser (see 6.2), the lock shall be of hand- or key-change design. The lock shall resist opening by manipulation for not less than 20 man-hours. The lock shall be provided protection against opening by radiological techniques for not less than 20 man-hours. The lock shall meet the requirements of Federal specification FF-L-2740, Class TR, Type NT, Size LD.

3.4.1 Combination lock installation. The lock's dial ring shall be mounted so as to be flush to the front surface of the door front. The attachment of the dial ring to the door shall be firm and secure so that there is no movement or side play. The lock case shall be securely attached to the door with screws which shall be retained by lock washers or other suitable and effective means so that there is no movement or side play. The lock's spline key shall not be defaced in any manner and shall be inserted to within 1/32 inch of the top of the lock drive cam. The lock's outer spindle shall be threaded not more than four threads from the top of the lock drive cam. The lock shall not be changed or altered in any manner from the formation supplied by the lock manufacturer. No lubricant other than that supplied by the lock manufacturer shall be used within the lock case.

3.4.2 Lock and lock mounting drawings. Upon the specific written request of the purchaser, the manufacturer of the cabinet shall supply complete and exploded view drawings of the cabinet's locking mechanism and lock mounting, with individual parts

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indexed.

3.5 Air Vent. The class 6, type II, size III cabinet shall have an air vent to provide air circulation within the cabinet. The outside dimensions of the vent opening shall be not larger than 5 by 9 inches. The vent shall be located in the front face of the cabinet beneath the door. The provisions for and the design of the vent shall provide protection against surreptitious entry.

3.6 Suspensions for map and plan hangers. The map and plan hanger suspensions for type I cabinets may be the side-arm or the cradle type in 3.6.1, or they may be the stationary type having traverse tracks with individual and removable map and plan hangers. Suspensions and hangers shall travel easily, quietly, and smoothly in their tracks.

3.6.1 Side-arm and cradle type suspensions. These suspensions shall travel on case hardened ball bearings or ball bearing rollers. Ball bearings and rollers shall be as specified in 3.6.2. The steel used in the neutral and tie members shall be not less than 16 gage (0-0598-inch). Neutral and tie members of the cradle type suspensions shall be joined by not less than 2 spot welds at each connections. All members shall be cadmium or zinc plated to a minimum thickness of 0.0004-inch except for areas burned during the welding process. Alternatively, a black oxide coating may be used provided the entire member is then coated with a clear organic finish which dries to a hard film. The suspensions shall have bumpers or shock absorbers of rubber or other comparable material to prevent metal to metal contact between the rear of the suspensions and the back of the cabinet. Heavy duty stops shall be provided to prevent the suspensions from falling out of the cabinet when fully extended. The outward travel of suspensions shall be to the extent necessary to provide clear and easy access to the cabinet's contents. Suspensions shall withstand the test in 4.4.8.2.

3.6.2 Ball bearings and ball bearing rollers. Ball bearings, free rolling rollers, or fixed journal rollers of the ball bearing or floating type shall be used to support the suspensions. There shall be at least three main bearing rollers in each side-arm slide that shall be not less than 1/4-inch thickness, slightly chamfered at both edges, and not less than 7/8-inch in diameter. Rollers shall be accurately turned from cold-rolled steel and shall be case hardened. When used, the housing or retainer for the free rolling rollers shall be of cold-rolled steel not less than 0.0598-inch and welded to the side arm at each end by not less than 2 spot welds. When journal rollers are used, each suspension shall have at least 6 of the ball bearing type and 2 of the stud bearing type. When free

rollers or balls are used, there shall be not less than 10 to a suspension. Balls shall be not less than 3/8-inch diameter, hardened and polished, and so retained in concave races to prevent dislocation or removal of balls unless the suspension is dismantled.

3.7 Channel base assembly. The channel base assembly for the style A cabinet shall consist of two channel formed, removable steel bases attached to the cabinet's bottom. One base shall extend from front to back on the left underside of the cabinet; the other from front to back on the right underside. The bases shall be 4 inches high and 5 inches wide, $\pm 1/4$ inch. The side of the base which bears on the floor surface shall have a return flange from each side so as to provide a lengthwise slot approximately 2 inches wide. The slot may extend the full length of the base or it may run to within approximately 2 inches from each end of the base. The outer edges of the base shall be recessed approximately 1/2-inch in from the side, front, and back edges of the cabinet base. The front and rear ends of the bases shall have metal caps which shall be removable when it is desired to anchor the cabinet to the floor. Attachment of the base assembly shall not weaken the tamper resistance quality of the cabinet and the assembly shall withstand the test in 4.4.8.4.

3.8 Pretreatment and finishing.

3.8.1 Pretreatment. All exterior and interior ferrous metal surfaces of the cabinet shall be treated for painting in accordance with any of the types in TT-C-490.

3.8.2 Finishing. The final coat shall be applied to all exterior and interior metal surfaces except plated metal. The minimum total finished film thickness of the final coat shall be not less than 1.0 mil. The final coat shall level out to produce uniform exposed surfaces without runs, grit or other foreign matter, areas of thin film or no film, and without separation of color. Special attention shall be given to the base and interiors to insure that all surfaces are adequately protected against rust. The final finish shall withstand the test in ? without evidence of cracking, flaking, or loss of adhesion of the finish. Two test panels of 0.0359 inch steel in 3 by 5 inch size shall be furnished for purposes of the test. One panel shall be prepared to reflect the inner coating and one to reflect the outer coating used.

3.8.3 Bolts, screws, and nuts. Bolts, screws, nuts, and similar hardware shall be made to resist rust by electrogalvanizing or by zinc coating, cadmium, or chromium plating as specified in 3.2.3, 3.8.2.

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3.9 Lubrication. All of the cabinet's moving parts requiring lubrication shall have a lubricant applied which is suitable to the varied climatic conditions likely to be encountered during the service of the cabinet.

3.10 Surreptitious and forced entry. Cabinets shall be tested as specified in 4.4.8.5, and the surreptitious, covert, and forced entry protection afforded by the cabinets shall be for not less than the periods of time specified hereunder.

Class 5 - 20 man-hours against surreptitious entry, 30 man-minutes against covert entry and 10 man-minutes against forced entry.

Class 6 - 20 man-hours against surreptitious entry, and 30 man-minutes against covert entry.

3.11 Radiology protection. The cabinet shall resist entry by radiology techniques for not less than 20 man-hours. If additional shielding is needed to protect the lock, a 1 percent increase in the cabinet's total weight will be permitted.

3.12 Identification labels. Each cabinet furnished by, contract or order under this specification shall bear metallic labels as specified hereunder.

3.12.1 GSA label. The label shall be affixed to the outside surface of the door. The label shall have a silver background and red letters not less than 1/8-inch in height. The label shall show the following:

GENERAL SERVICES ADMINISTRATION
APPROVED SECURITY CONTAINER
MANUFACTURER'S NAME

3.12.2 Cabinet identification and contract number. This label or labels, shall be affixed to the inside face of the door. The label shall show in easily read letters, the manufacturer's name and address, the cabinet's model and serial numbers, date of manufacturer, and the Government contract number.

3.12.3 Certification label. This label shall be affixed on the inside face of the door and shall be clearly visible when the door is open. The label shall show in easily read letters not less than 1/8-inch in height, the following certification.

For class 5 cabinets:

This is a U.S. Government Class 5 security container, which has been tested and approved by the Government

under Fed. Spec AA-D-00600C. It affords the following security protection:

20 man-hours against surreptitious entry.
30 man-minutes against covert entry.
10 man-minutes against forced entry.

For class 6 cabinets:

This is a U.S. Government Class 6 security container, which has been tested and approved by the Government under Fed. Spec AA-D-00600C. It affords the following security protection:

20 man-hours against surreptitious entry.
30 man-minutes against covert entry.

3.12.4 Number label. All security cabinets under this specification shall have a number label affixed to the front face of the product by either a durable adhesive or two zinc plated drive screws. Regardless of the method used, the label attachment shall not degrade the cabinet security. The label shall be mounted on the cabinet frame above or to the left side of the door. The label shall be nominal 0.020 inch thick, satin finished aluminum and shall be 2-1/2 by 11/16 inches. The label numbering system shall be established by the manufacturer to provide nonrepetitive numbers. The label numbers shall be minimum 3/16 inches high and shall be embossed.

3.13 Workmanship. The workmanship shall be of a quality to produce a serviceable and well finished end item able to withstand hard daily usage. The edges of all exposed parts shall be protected by folding, beading, flanging, or grinding to eliminate burrs, roughness, and sharp edges. The bending of channels and flanges shall be straight and smooth. Welding and brazing shall produce rigid and secure connections. Lock washers, cotter pins, clips, retainers, or built in features shall be used to prevent loosening of screws, bolts, and nuts, which may cause disengagement of parts and possible lockout. Care shall be taken to insure that face hardware including door handles and combination locks are securely and firmly mounted on the cabinet by methods to prevent their loosening in operation. The cabinet door and locking mechanism shall operate smoothly without binding or jamming of parts. To assure compliance with the requirements for lock installation, particular attention shall be given to the quality of workmanship and the method used in installation of the lock in the cabinet door. The cabinet shall be free of any defect or feature which may affect its appearance and serviceability, or which may cause personal injury.

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3.14 Replacement of component parts. Components parts, such as suspensions, combination locks, and external face hardware shall be capable of identical replacement in the field without the use of specialized tools or specially qualified personnel and without weakening the security protection of the cabinet.

3.15 Spare parts list. A spare parts list of all cabinet parts which may be subject to subsequent replacement because of wear or damage shall be furnished with each cabinet delivered under contract. The parts list shall clearly identify the parts by description and part number. The list shall be printed on heavy paper or other suitable material and bonded by glue or adhesive to an inside surface of the cabinet in a location accessible to maintenance personnel.

4. QUALITY ASSURANCE PROVISIONS

4.1 Inspection responsibility. Except that testing for qualification shall be performed by an agency designated by General Services Administration, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own or any other inspection facility or service acceptable to the Government. Inspection records of the examinations and tests shall be kept complete and available to the Government as specified in the contract or order. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to the prescribed requirements.

4.2 Component and material inspection. In accordance with 4.1, the supplier is responsible for insuring that components and materials used are manufactured, tested and inspected in accordance with the requirements of referenced subsidiary specifications and standards to the extent specified, or, if none, in accordance with this specification.

4.3 Examination of preparation for delivery. An examination shall be made to determine that the packaging, packing and marking comply with the requirements in Section 5 of this specification. Defects shall be scored in accordance with table II. The sample unit shall be one shipping container fully prepared for delivery. Sampling shall be in accordance with MIL-STD-105. The lot size shall be the number of containers in the inspection lot. The inspection level shall be I and the AQL shall be 4.0 defects per hundred units.

TABLE II. Classification of preparation for delivery defects	
<u>Examine</u>	<u>Defects</u>
Markings exterior)	Omitted; incorrect; illegible; improper size, location, sequence or method of application.
Materials	Any component missing or damaged.
Workmanship	Inadequate application of components such as incomplete closure of container flaps or shroud.

4.4 Testing procedures and tests.

4.4.1 Testing agency. Qualification tests accomplished on cabinets submitted for approval for inclusion on the applicable Qualified Products List (QPL) and any retesting that may be required shall be performed by a testing agency specifically designated by the General Services Administration.

4.4.2 Test costs. All testing costs entailed in determining the qualification of the supplier's product, including costs of retesting of a qualified product if subsequently disqualified under 3.1.1, shall be borne by the supplier, and shall be payable to the General Services Administration.

4.4.3 Test procedures. The following procedures shall govern the testing of all cabinets submitted for qualification under this specification:

- (a) Samples shall be submitted for qualification only after the supplier has obtained written authorization from the General Services Administration.
- (b) A qualification test may be discontinued at the Government's testing facility at any time the product fails to meet any one or more of the requirements set forth in this specification. The manufacturer may be permitted to make modifications on the sample during the testing phase where such modifications, in the judgement of the General Services Administration and the testing facility, are clearly in the interest of the Government.

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- (c) In case of failure of the sample, consideration will be given to the request of the manufacturer for resubmission for retest only after it has been clearly shown that changes have been made in the product which the Government considers sufficient to warrant retest.
- (d) The manufacturer or his representative will not be permitted to observe the actual tamper resistance tests conducted on his product at the testing facility. However, when samples tested fail to comply with the requirements of this specification, the sample may be examined by the manufacturer or his representatives and full details of the failure may be made known to them in a manner which, for reasons of security, will be in the best interest of the Government.

4.4.4 Test samples. Two qualification test samples shall be forwarded at a time and to a place designated by the General Services Administration. In the event the samples are destroyed or damaged to such an extent during testing that testing cannot be completed, the Government reserves the right to require the manufacturer to furnish additional samples to complete the testing. Samples delivered to the test facility shall have a tag attached which shall reference this specification and identify the sample by class, type, and size.

4.4.5 Drawings and material specifications. The manufacturer shall furnish two complete sets of construction and assembly drawings and material specifications with the sample submitted for qualification. When samples have been tested and the product is approved for inclusion on the applicable QPL, the manufacturer shall furnish three additional complete sets of the assembly and construction drawings and material specifications lists to the General Services Administration for the Government's use in inspection and acceptance of the product after award of contract. All material so furnished by the manufacturer will be held in proprietary confidence.

4.4.5.1 Changes in construction or construction drawings. No changes shall be made in the construction or construction drawings of the cabinet after it has become qualified and is furnished under contract or order unless prior written authorization to make changes is obtained from the GSA contracting officer.

4.4.6 Qualification testing. Qualification testing shall consist of the following, tests described under test methods in 4.4.8. Failure of the sample to withstand one or more of these tests shall provide reason to consider the product as having

failed to meet qualification requirements.

- (a) Door test - 4.4.8.1
- (b) Suspension test (cradle or side arm types) - 4.4.8.2
- (c) Drop test - 4.4.8.3
- (d) Channel base test - 4.4.8.4
- (e) Surreptitious and forced entry tests - 4.4.8.5
- (f) Radiology test - 4.4.8.6

4.4.7 Acceptance after award of contract. The Government reserves the right to inspect and test each cabinet, including all component parts thereof, delivered for acceptance under this specification after award of contract.

4.4.8 Test methods.

4.4.8.1 Door test. For the purpose of this test the cabinet shall be empty and shall not be anchored to the floor. The cabinet door shall be opened 90 degrees from its closed position and 150 pounds of weight shall be loaded on the top edge of the door opposite and furthest from the hinged side. The cabinet shall be allowed to remain in this condition for approximately 24 hours. The cabinet shall then be examined. It shall have failed the test if the weighted door has caused the cabinet to tip over or if the door fails to operate easily and smoothly.

4.4.8.2 Suspension test. This test shall apply to cabinets furnished with cradle or side arm type suspensions. The cabinet shall be bolted or otherwise secured in place and the suspension hangers loaded in proportion to simulate the weight of one thousand 42- by 30-inch drawings (100 pounds). The suspension shall then be connected to a machine which will operate the suspension. The machine shall have a positive means, without springs, for adjusting its stroke so that the suspension will travel the full distance (not more than 1/4-inch clearance at each end of the stroke) from back stop to front stop. The machine shall drive the suspension at a rate of 20 cycles per minute, ± 2 cycles. The machine shall in no way contribute to the support of the suspension. The suspension shall be cleaned and lubricated with a lubricant of the type used by the manufacturer at the end of 10,000 cycles and shall have no further attention until the test is completed. At the beginning of the test and at each increment of 10,000 cycles, a test shall be conducted to determine the force required to start the suspension forward to move it to its full outward limit. The suspension shall have failed the test if the operating force exceeds 10 pounds to complete the forward stroke before, or at 50,000 cycles.

4.4.8.3 Drop tests. All sample cabinets shall be subjected

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to the tests specified in 4.4.8.3.1 and 4.4.8.3.2. Cabinets shall be loaded with weight to simulate 150 pounds of stored material.

Cabinets shall then be locked and drop tested as specified. Style A cabinets shall tested with channel base assembly attached. This test does not apply to type III cabinets.

4.4.8.3.1 Thirty-six inch test. The cabinet shall be raised until its base is 36 inches above the floor surface. It shall then be allowed to free fall, onto a hard, level, concrete surface or equal surface. Any resulting lockout requiring destructive force to reduce shall provide reason to consider the cabinet as having failed to withstand the test.

4.4.8.3.2 Thirty foot test. The cabinet shall be raised until its base is 30-feet above the floor surface. It shall then be allowed to free fall, base down, onto a hard, level, concrete surface or equal surface. Any damage which results in the releasing or making accessible without further force, any part of the stored material shall provide reason to considered the cabinet as having failed to withstand the test.

4.4.8.4 Channel base assembly test. This test shall only apply to type A cabinets. The cabinet, loaded as specified in 4.4.8.3, shall be locked and then raised until the bottom of the channel base assembly is 6 inches above the floor surface. The cabinet shall then be allowed to free fall base down, onto a hard level concrete surface or equal surface. The test shall not cause appreciable distortion to the assembly nor weaken its attachment to the cabinet.

4.4.8.5 Surreptitious, covert and forced entry tests. There shall be sufficient time and opportunity to study the design and construction of the vault door and to develop testing methods prior to the start of testing. There shall be no limit to the number of methods of surreptitious and forced entry attempted. Not more than two men shall be used simultaneously during each attempt at entry. The man-minute working time shall cover the period during which a surreptitious or forced entry test on the cabinet is in progress and shall be exclusive of time required for safety precautions and rest periods.

4.4.8.5.1 Tools and devices. Tools and devices used in the surreptitious entry tests are unlimited, except that the total weight of the tools used for a single test shall not exceed 150 pounds. The tools and devices used in the covert entry tests shall be limited as specified below. Power tools, electrically or battery powered shall be commercially available equipment, and shall be limited to drills not exceeding 5000 rpm. Pressure rigs may be used, with a lever arm not exceeding 30 inches. Tools may

be reasonably modified, i.e., special chucks on drills, ground or shaped chisels or pry bars, etc. Electrical tools shall be able to operate on electricity, available in normal office space. Tools and devices shall be capable of being carried in two cases or bags, each case or bag not exceeding 1.5 cubic feet in volume. The total weight of the tools used in a single test shall not exceed of 150 pounds, exclusive of the weight of the case. Devices for the application of heat shall be limited to single tank propane, butane or equivalent devices which fall within the weight and dimension limits specified above. Acetylene, MAPP or equivalent shall not be used. Electric arc or any form burn bars, oxidizer assisted products or explosives will not be used. The tools and devices used for forced entry tests shall be limited to non-powered tools only. The test tools and devices selected for a particular attempt shall be weighed prior to commencement of the test.

4.4.8.5.2 Timing. The time clock shall be started when the test equipment is picked up to approach the sample and shall not be stopped during the test except as specified above. Any change or repair of tools taken from the carrying case during a test shall only be done while the clock is running. The tests must be conducted in a manner that is repeatable. Any surreptitious, covert or forced entry into the cabinet under the above conditions, within the time specified for the cabinet's class, shall provide reason to consider the cabinet as having failed to meet the requirement.

4.4.8.6 Entry by radiological techniques. The cabinet shall successfully meet the following test to demonstrate resistance to entry by radiological techniques. The cabinet structure shall be radiographed and the resulting radiographs shall not permit determination of the lock combination to the extent that entry is made into the cabinet in less than the time specified. Radioactive isotopes and other sources, of any type judged to be effective for the purpose of this test, will be used. Any effective radiation shielding provided in the cabinet will be included in the test. The test is intended to simulate attempted entry within the specification limit of 150 pounds of equipment, utilizing practicable and feasible procedures and equipment available to Government testing agencies performing the tests. Any entry made under the preceding conditions within 20 man-hours shall be considered a failure of the cabinet to meet the requirement of this specification.

4.4.8.7 Finish test. The steel panels prepared in accordance with 3.2.3, 3.8.2 shall be bent around a 1/4-inch rod to an angle of 180 degrees. The panels shall then be examined for compliance with 3.2.3, 3.8.2.

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4.4.9 Inspection. The cabinet shall be inspected for compliance with requirements of this specification for dimensions, weight, color and finish, and workmanship.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A, B, or C, as specified (see 6.2).

5.1.1 Level A and B. Filing cabinets, with drawers closed, shall be protected from marring or surface abrasion by cushioning with fiberboard pads, cellulose wadding or comparable fiberboard pads of sufficient width and thickness to afford maximum protection against stresses of shipment and storage. The fiberboard pads and cushioning material shall be secured in place with tape conforming to PPP-T-60, class 3.

5.1.2 Level C. Filing cabinets shall be cushioned and protected in accordance with the manufacturer's commercial practice.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.2.1 Level A.

5.2.1.1 Cabinets weighing over 1.00 pounds or less. Each cabinet, cushioned as specified in 5.1.1, shall be packed in a box conforming to PPP-B-621, class 2; PPP-B-601, overseas type; PPP-B-585, class 3; PPP-B-591, overseas; or to PPP-B-640, class 2, grade A respectively. Each shipping container shall be provided with a sealed case liner conforming to MIL-L-10547. Closure and strapping shall be in accordance with the appendix to the applicable box specification.

5.2.1.2 Cabinets weighing over 1.000 pounds. Each cabinet, cushioned as specified in 5.1.1, shall be packed in a crate conforming to PPP-C-650. The cabinet shall be blocked, braced, and anchored to prevent movement within the crate during transit and shall be shrouded with paper conforming to PPP-B-1055. The shroud shall completely enclose the cabinet and shall extend to the base of the crate.

5.2.2 Level B. The cabinets shall be packed as specified in 5.2.1, except that the containers shall be domestic class and type and caseliners and waterproof shrouds shall not be required. Closures, strapping, blocking, and bracing shall be in accordance with the Appendix to the applicable container specification.

5.2.3 Level C. The cabinets shall be packed to insure

carrier acceptance and safe delivery to destination in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking.

5.3.1 Civil agencies. In addition to any special marking required by the contract or order, shipping containers shall be marked in accordance with Fed. Std. No. 123.

5.3.2 Military requirements. In addition to any special marking required by the contract or order, shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. The filing cabinets under this specification are intended for filing and storing of classified drawings, maps, plans, film, recording tapes, and other classified items of sizes or configurations which preclude their storage in drawer type filing cabinets. The class 6, size III cabinets are intended to be used to house equipment that may generate some heat and air circulation may be desired.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

- (a) Title, number, and date of this specification.
- (b) Class, type, and size required (see 1.2.1).
- (c) Style required, if type II, size II (see 1.2.2).
- (d) Hand- or key-change lock required (see 1.2.3).
- (e) Selection of applicable levels of packaging, packing, and marking required (see 5.1, 5.2, and 5.3).

6.3 Qualification. With respect to products requiring qualification, awards will be made only for such products as have, prior to the time set for opening of bids, been tested and approved for inclusion on the applicable Federal Qualified Products List, whether or not such products have actually been so listed by that date. The attention of suppliers is called to this requirement, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification so that they may be eligible to be awarded contracts or orders for the products covered by this specification. The activity responsible for the Qualified Products List is Furniture Commodity Center, Federal Supply Service, General Services Administration, Washington, D.C. 20406, and information pertaining to qualification may be obtained from that activity.

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6.4 Definitions of terms used in this specification.

6.4.1 Entry. For the purpose of this specification, entry means: (1) the opening of the cabinet, or (2) provision of a gap, crevice or hole of any dimension in the cabinet from which material can be extracted.

6.4.2 Surreptitious entry. For the purpose of this specification, surreptitious entry means a method of entry, such as lock manipulation or radiological attack on the combination lock, which would not be detectable during normal use or during inspection by a qualified person.

6.4.3 Covert entry. For the purpose of this specification, covert entry means a method of entry which would leave evidence, but would not be detectable by a user during normal use, but would be detectable during inspection by a qualified person.

6.4.4 Forced entry. For the purpose of this specification, forced entry means a method of entry which would leave evidence of the act and which would be readily discernible in the normal use of the cabinet. Forced entry is considered to be an attack in which the attacker has no concern over leaving evidence that the container has been opened.

6.4.5 Normal use. For the purpose of this specification, normal use means the opening of the combination lock, releasing the locking mechanism, opening the cabinet drawer to the extent necessary for the reception or withdrawal of material; and closing and relocking the cabinet. During normal use, it is considered the cabinet's top and front are exposed to view and touch; the rear and sides exposed to view only; and the base neither exposed to view nor touch.

6.4.6 Lock manipulation. For the purpose of this specification, lock manipulation is defined as the opening of the combination lock without alteration of the physical structure, or disarranging of parts. Ordinarily, manipulation would be accomplished by movement of the lock dial.

6.5 Samples. All samples required for test purposes shall be furnished at no expense to the Government and the manufacturer shall pay all transportation charges to and from the point where the tests are performed. All tested samples shall become the property of the Government but may be released to the manufacturer at the option of the Government. Upon request, the manufacturer shall furnish to the Government testing facility, a cabinet equal in every respect to that of the qualified sample for use, of inspection and test during the term of qualification.

The cabinet shall be furnished at no expense to the Government and will be returned to the manufacturer upon removal of his product from the qualified list.

6.6 Special techniques. Information relating to special techniques will be disclosed to qualified suppliers and personnel of the Federal agencies on a need to know basis.

Preparing activity:

GSA