AA-F-2815
NOVEMBER 16,1992

# INTERIM FEDERAL SPECIFICATION

## FILING CABINET, UNINSULATED, SECURITY (SECRET AND CONFIDENTIAL STORAGE)

This specification is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

## 1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers uninsulated, filing cabinets which are designed to meet the filing and storage criteria for SECRET and CONFIDENTIAL level classified information set forth in Executive Order 12356, governing the classification, declassification, downgrading and safeguarding of national security information. The cabinets provide protection against unauthorized entry for the periods of time specified in 1.2.1.

1.2 Classification.

1.2.1 Classes. The filing cabinets shall be of the following classes, as specified (see 6.2).

Class 7 - Resistant to 20 man-hours surreptitious entry, 15 man-minutes covert entry. No forced entry requirements.

1.2.2 Styles and sizes. The filing cabinets shall be of the following styles and sizes, as specified (see 6.2).

Style A - Vertical filing cabinets (See Figures I and II)

Size I - 2-drawer, legal size
Size V - 5-drawer, legal size

Style B - Lateral filing cabinets (See Figure III)

Size I - 2 drawer, legal size
Size V - 5 drawer, legal size

1.2.3 Widths. The style B filing cabinets shall be of the following widths, as specified (see 6.2).

Width 1 - 900 mm
Width 2 - 1050 mm
Width 3 - 1200 mm

1.2.4 Designs. When specified (see 6.2), the cabinets shall be of the following design:

ML - Multilock. Independently controlled locking draw-

ers with each drawer having its own individual combination lock and locking mechanism. (see Figure II)
SL - Single Lock.

2. APPLICABLE DOCUMENTS

2.1 Government publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issue in effect on the date of invitation for bids or request for proposal, shall apply.

Federal Specifications:

FF-L-2740 - Lock, Combination
QQ-C-320 - Chromium Plating (Electrodeposited).
QQ-P-416 - Plating, Cadmium (Electrodeposited).
TT-C-490 - Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.
PPP-B-601 - Boxes, Wood, Cleated Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock Corner.

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, DC 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, DC, Atlanta, Chicago, Kansas City, MO., Fort Worth, Denver, San Francisco, Los Angeles, and Seattle.

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

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

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 specification procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on the date of invitation for bids or request for proposal, shall apply.

American Society for Testing and Materials (ASTM):

B-633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel.

(Application for copies should be addressed to the American Society for Testing and Materials, 1616 Race Street, Philadelphia, PA 19103.)

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, 2200 Mill Rd., Alexandria, VA 22134.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the National Railroad Freight Committee, Suite 1120, 222 S. Riverside Plaza, Chicago, IL 60606.)

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 and inspections specified in section 4, and have been listed on or approved for listing on the applicable qualified products list (QPL). No changes may be

made in the design or construction of listed products without written approval from the activity responsible for the qualification.

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 entry 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.

3.1.1.2 Change in specification requirements. This specification will be 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.

3.2 Material. Materials used in the cabinet's construction shall be as specified herein. Materials not specified shall be of good commercial quality, suitable in all respects for the purpose intended. Materials used in the cabinet shall be of the type, thickness and strength to meet all applicable requirements of this specification. Materials shall be free from rust, scale, pits, buckles and other imperfections which might adversely affect the appearance or the serviceability of the finished product.

3.2.1 Non-metallic materials. When non-metallic materials are used for major cabinet components such as the cabinet case and drawer heads and bodies, the material shall not present a safety hazard from toxic gases in a fire situation. Cabinets produced from non-metallic materials shall withstand temperature ranges from -30°F to 150°F without damage or loss of their ability to resist entry for the specified period.

3.2.2 Face hardware. The face hardware, excluding combination locks, shall be satin finished anodized aluminum or stainless steel, or satin finished chromium on steel or on die-cast zinc, brass or bronze. The exposed surfaces of all hardware used on a single unit shall be finished to match each other within the limits of the base material and protective coating used. The exposed surfaces of all face hardware shall be free of sharp edges, burrs, pits, nicks or scratches that penetrate the protective plating or anodizing.

3.2.3 Finishing Materials.

3.2.3.1 Epoxy, enamel and lacquer. When a finish is required, the final coat for the cabinet shall be epoxy, acrylic,

lacquer or urethane. The color shall be as specified in 3.2.4.

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

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

3.2.3.4 Zinc coating. Zinc coating shall be in accordance with ASTM B-633.

3.2.4 Color of finish. The color of finish or cabinet exterior surface shall be as specified (see 6.2) from the following colors as provided by Federal Standard No. 595.

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

3.3 Construction and design.

3.3.1 Design. Filing cabinets shall be 1 drawer wide and shall have the same general appearance as standard, vertical and lateral filing cabinets, with the number of drawers specified in 1.2.1.

3.3.2 Dimensions and weights. The cabinets, exclusive of face hardware and caster base platform, shall be of the maximum dimensions specified in Table I. The weight of the empty cabinet shall not exceed 366 kilograms per square meter of base area. The weight shall be permanently marked on the cabinet base or on the left or right front upright near the cabinet base. The characters shall be not less than 10 mm in height and shall be visible from the front of the cabinet.

Table I Dimensions

| Style | Size | Maximum Dimensions, outside - overall millimeters. (excluding face hardware) | | |
|---|---|---|---|---|
| | | Height | Width | Depth |
| A | I | 780 | 530 | 860 |
| A | V | 1500 | 530 | 860 |
| B | I | 780 | 900 | 530 |
| B | I | 780 | 1050 | 530 |
| B | I | 780 | 1200 | 530 |
| B | V | 1675 | 900 | 530 |
| B | V | 1675 | 1050 | 530 |
| B | V | 1675 | 1200 | 530 |

3.3.3 Assembly. The cabinet top, bottom, sides, back and case frame members shall be assembled into a rigid unit. Mechanical attachments shall be secured by methods to withstand loosening during the service life of the cabinet. All welding and brazing shall be sound without porosity and shall accomplish secure connections and joints in proper alignment. The greatest depth permitted on depressed spot welds on exterior surfaces shall be not more than 0.4 mm. All excessively depressed spot welds and all cratered spot welds shall be filled, ground smooth and finished so as to blend with the cabinet finish. Interior welds shall be finished to eliminate sharp edges and rough surfaces which might cause personal injury. The cabinet shall withstand the rack test in 4.6.3 without sagging or binding of parts or other damage to cause interference with the smooth, easy operation of drawers, suspensions, followers, lock mechanism and other movable parts.

3.3.4 Drawers.

3.3.4.1 Components. Each cabinet drawer shall have drawer stops specified in 3.3.4.4, a drawer pull or handle specified in 3.3.4.5, drawer latch with release mechanism specified in 3.3.4.6, a label holder specified in 3.3.4.8. Style A cabinets shall have a follower block specified in 3.3.5. Style B cabinets shall have drawer dividers, adjustable on 1 inch centers. Drawer guide rods are not permitted.

3.3.4.2 Drawer design. The drawer design shall be such that when the drawer is pulled open, the file material stored therein shall be directly accessible to the user without requiring further movement or operation of any cabinet part or component. For Style A cabinets, with the drawer fully extended and the follower block in the farthest back position, the face of the follower block shall be within 100 mm of the cabinet face. For style B cabinets, the drawer shall fully extend so that the back of the drawer is within 5 mm of the cabinet face. The drawer shall allow hanging folders. Style B cabinets shall allow hanging in both lateral and front to back orientations. The drawer shall be aligned in the drawer opening and shall fit squarely, equidistant on all four sides. The drawer, when loaded with typical filing material, shall travel easily, quietly and smoothly on its suspension, and at no point in the open position shall there be contact between the drawer's top or bottom surfaces and the top or bottom surfaces of any other open drawer. The drawer shall be removable from the cabinet for service purposes.

3.3.4.3 Construction. The drawer body shall be formed of material as specified in 3.2. The drawer back shall be attached to the drawer body by suitable and effective methods. The control drawer head shall be removable from the drawer body for service purposes. Drawer heads shall be interchangeable, without modification and with a minimum of alignment effort, between cabinets of the same brand, class and width. The height of the drawer back

shall be not less than the height of the drawer sides. The upper edge of the drawer shall be formed in a flat fold, side bead or finished in a manner to eliminate burrs and rough edges. The inside corners of the drawer front shall be neatly closed and formed in such a manner as to present no external sharp corners or rough edges.

3.3.4.4 Stops. The drawer stops shall be a heavy duty type which shall prevent the drawer from hitting the back of the cabinet on the inward movement and shall prevent the drawer from falling out of the cabinet when pulled to the fully opened position. Stops shall be tested in accordance with paragraph 4.6.2.

3.3.4.5 Drawer pull or handle. The drawer pull or drawer handle shall be of one of the materials in 3.2.1 and of sufficient thickness and strength to withstand hard daily usage. Stamped drawer pulls are not permitted. The pull shall be securely and firmly staked to the drawer head by a method to prevent its accidental loosening during the service life of the cabinet. The drawer latch release mechanism may be integral with the drawer pull or handle. The drawer pull handhold and the handhold for the drawer handle shall be not less than 25 mm by 90 mm. The pull or handle shall be finished to eliminate roughness and sharp edges.

3.3.4.6 Drawer latch and latch release control. Each drawer, including the lock drawer shall have an automatic latch which shall be activated when the drawer is moved to the closed position. The latch for the lock drawer may be integral with the locking bolt mechanism. The latch shall hold the unlocked drawer in the closed position; and unless the latch release control is operated, it shall not be possible to open the drawer by shaking, jerking or moving the closed drawer up and down, back and forth or side to side. The latch mechanism design and materials used in its construction shall be of sufficient strength to withstand hard usage. The latch release may be integral with the drawer handle or it may be a finger controlled button or lever located on the drawer front adjacent to the drawer handle or pull, so that easy one hand operation is possible to simultaneously release the latch and pull the drawer open. The latch and latch release shall operate easily and smoothly.

3.3.4.7 Interlock. Style B cabinets shall have an interlock designed so that only one drawer may be in the extended position at a time. The interlock shall be tested in accordance with paragraph 4.6.8.

3.3.4.8 Label holder. The label holder shall readily accommodate and retain without binding label cards not less than 70 mm by 45 mm. The label holder shall be securely attached, without movement, to the drawer front and any required mounting slots in the drawer front shall not be visible after the label holder is

installed.

3.3.5 Movable follower block. The follower block shall be as specified in 3.3.5.1 or 3.3.5.2. Its upper edge shall have a completely closed formation and all exposed surfaces shall be finished in a manner which completely eliminates roughness. The follower block shall be easy to adjust and removable. The follower block control shall be easily accessible when placed in the farthest back position.

3.3.5.1 Friction locking type. The friction locking type follower block shall be held in place by means of pressure exerted against the drawer sides and shall be held securely in a right angle position to the drawer sides at any point along the drawer depth, except for a maximum of 125 mm at the front of the drawer. The follower block shall be spring controlled and activated at one point near the upper edge of the follower by a device designed for this purpose. The follower block shall withstand the test specified in 4.6.6 without damage or creeping in excess of 12 mm.

3.3.5.2 Positive locking type. The positive locking type follower block shall be held in place by engaging slots along the drawer sides or bottom and shall be held securely in a right angle position to the drawer sides at no greater than 25 mm increments, except for a maximum of 125 mm at the front of the drawer. The locking method shall be such as to prevent disengaging by pressure of filing material in the drawer. When the locking method does not incorporate spring action, the locking shall be accomplished solely by the weight of the follower block. Positive locking followers shall withstand the test in 4.6.6 without damage or disengagement from the secure right angle position to the drawer sides.

3.3.5.3 Follower block support. The follower block support shall be constructed of corrosion resistant material or shall be made corrosion resistant by plating as specified in 3.2.3.3 and 3.2.3.4 or may have an oxide coating with the entire member then coated with an organic finish which dries to a hard film. The support shall be held securely and shall move freely within the formation provided in the drawer side. The support arm extending along the drawer side shall be not more than 125 mm or less than 110 mm in length.

3.3.6 Drawer suspensions. Drawer suspensions shall be either a side arm type or a cradle type. All welds necessary in the assembly of the suspensions shall provide strong, secure joints and connections. Except for areas burned during welding processes, all surfaces of suspension members shall be cadmium or zinc plated as specified in 3.2.3.3 and 3.2.3.4. A supplementary coating shall be used to cover weld burned areas. Alternatively, an oxide coating may be used with the entire member then coated with an organic finish which dries to a hard film. Suspensions

shall be equipped with bumpers of a shock absorbing material and located so as to prevent metal to metal contact between the rear of the suspension and drawer track and the back of the cabinet case. Suspension slides shall travel easily, quietly and smoothly with the drawer. Suspensions shall meet the test requirements in 4.6.1 and 4.6.4.

3.3.6.1 Drawer and case tracks. Case tracks shall be secured to at least the front and rear interior reinforcing members by interlocking of lugs on the case track into appropriate openings in the reinforcing members. The interlocking shall provide secure connections without vertical or horizontal movement. Alternatively, the case track may be attached to the front and rear interior reinforcing members by interlocking lugs, bolts or welding, or any combination thereof, to provide a comparable connection. The drawer track mounting shall be attached to the drawer sides. The drawer and case tracks shall be so located as to be level and in proper relation to one another and must hold the drawer squarely in the drawer opening. All outer surfaces of the drawer and case tracks shall be finished in accordance with 3.2.2 and 3.5.

3.3.7 Drawer dimensions. The minimum, clear, inside drawer dimensions shall be 260 mm high, 387 mm wide, and 610 mm deep for Style A cabinets. Style B cabinets shall have clear inside dimensions of 260 mm high, and 387 mm deep. The width of the Style B cabinet drawers shall be 750 mm for Width 1, 900 mm for Width 2 and 1050 mm for Width 3.

3.4 Locking mechanism and lock.

3.4.1 Lock mechanism. All drawers of the cabinet shall be locked with a dead bolt locking mechanism which is controlled by a single, changeable, combination lock specified in 3.4.2. The lock shall be mounted in the top drawer of two drawer cabinets and the second from the top drawer in five drawer cabinets. When Design ML is specified, each drawer shall have its own dead bolt locking mechanism and changeable combination combination lock. For single lock cabinets, under the conditions specified in 4.6.9, it shall not be possible to secure the control (lock) drawer when any other drawer is open beyond the point of engagement of the locking mechanism. For multilock cabinets, the proper opening and closing of the individual drawers shall be accomplished regardless of the locked or unlocked condition of any other drawer or drawers.

3.4.2 Changeable combination lock. A changeable combination lock of the type specified herein shall be installed as an integral part of the cabinet. The lock shall meet the requirements of Federal Specification FF-L-2740 for Style II, Model KC, Class TR, Size LD . The cabinet's design shall incorporate a method of inspecting and servicing the lock and the cabinet's bolt and cam assembly without completely removing the drawer head. The method used may be an inspection plate in the drawer

head installed in a manner as not to affect the integrity of the cabinets.

3.4.2.1 Combination lock installation. The lock's dial ring shall be mounted so as to be flush against the front surface of the drawer front, and its attachment to the drawer front shall be firm and secure without movement or side play. The lock case shall be securely attached to the lock drawer head with screws. Screws shall be retained by lock washers or other suitable and effective means so that there is no movement or side play to the lock case. When applicable, the lock's spline key shall not be defaced in any manner and shall be inserted to within 0.8 mm of the top of the cam. The lock's outer spindle shall be threaded to not more than 4 threads from the top of the lock drive cam. The formation of the drive cam operating spring shall not be changed or altered in any manner from the formation supplied by the lock manufacturer. Metal plates, housing or other barriers used around the lock case shall be installed in a manner so as not to abrade or other wise damage the lock spindle. No lubricant other than that supplied by the lock manufacturer shall be used within the lock case.

3.4.3 Locking mechanism and lock mounting drawings. Complete, readable, exploded view drawings of the locking mechanism and the lock mounting, with individual parts identified, shall be attached to the interior of the control drawer cover plate or other easily read location.

3.4.4 Government testing. The Government testing facility for the General Services Administration reserves the right of testing the combination lock in accordance with standards that are privileged to the Government (see 6.6).

3.5 Pretreatment and finish.

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

3.5.2 Finish. The finish coating specified in 3.2.3 shall be applied to all exterior and interior ferrous metal surfaces except plated metal. The exterior coating shall be textured. The texture shall be designed to make it difficult to disguise covert entry attempts. The minimum total finished film thickness of the final coat shall be not less than 0.025 mm. The finish shall level out to produce uniform exposed surfaces without runs, wrinkles, grit, areas of thin or no film or separation of color. Special attention shall be given to the base and interior to ensure that all surfaces are adequately protected against rust. The final finish shall withstand the test in 4.6.13 without evidence of cracking, flaking or loss of adhesion of the finish. Two test panels of 0.9 mm steel shall be furnished with the cabinet for the purpose of the test in 4.6.13. One panel shall be

prepared to reflect the inner coating and one to reflect the outer coating used.

3.5.3 Plating. Bolts, screws, nuts and similar accessories shall be made to resist rust by electro-galvanizing, or by zinc, cadmium or chromium plating. Plating shall be in accordance with 3.2.3.

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

3.7 Resistance to entry techniques.

3.7.1 Surreptitious and covert entry. The cabinet shall withstand the tests in 4.6.12 for not less than the periods of time specified hereunder.

Class 7 cabinets - 20 man-hours surreptitious entry, 15 man-minutes covert entry.

3.8 Cabinet labels. Each cabinet supplied under a contract or order shall bear metallic labels showing the information specified hereunder. Labels shall be attached in a manner sufficient to preclude removing the label without destroying the label. Regardless of the method used, the label attachment shall not degrade the cabinet security.

3.8.1 General Services Administration label. This label shall be affixed to the outside face of the control drawer. The lettering shall be green and not less than 3 mm high. The label shall show the following:


3.8.2 Identification label. An identification label shall be affixed to the external side of the control drawer and shall show the cabinet's model and serial number, month and year of manufacture and Government contract number.

3.8.3 Certification label. A certification label shall be affixed to the external side of the control drawer and shall bear the following certification:

For the Class 7 cabinet -

This is a U.S. Government Class 7 cabinet which has been approved by GSA under Fed. Spec. AA-F-2815. It affords the following protection:

20 man-hours against surreptitious entry.
15 man-minutes against covert entry.
No forced entry requirements."

3.8.4 Number label. Security cabinets under this specification shall have a number label securely affixed to the front face of the product. The label shall be mounted on the cabinet frame above or to the left side of the top drawer. The label shall be nominal 0.5 mm thick, satin finished aluminum and shall be 63.5 mm by 17.5 mm. The label numbering system shall be established by the manufacturer to provide non-repetitive numbers. The label numbers shall be minimum 5 mm high and shall be embossed.

3.9 Workmanship. The workmanship shall be of a quality to produce a serviceable item, able to withstand hard daily usage. The edges of all parts and sheets shall be protected by folding, beading, flanging or grinding to eliminate burrs or sharp edges. The bending of the channels and flanges shall be straight and smooth. Welding and brazing shall be secure. 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. Particular attention shall be given to the quality of workmanship and the method used in the installation of the combination lock in the cabinet. Moving parts shall operate smoothly. The security filing cabinet shall be free of any defects or features which may affect its appearance and its serviceability or which might cause personal injury.

3.10 Spare parts list. A spare parts list of all cabinet parts which may be subject to subsequent replacement because of wear or because of accidental damage shall be furnished with each cabinet delivered under contract. The parts list shall clearly identify the parts by description and parts, numbers. The list shall be legibly 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.

3.11 Replacement of component parts. Component parts, such as drawers, 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. Spare parts lists for the manufacturer's current produc-

tion shall be immediately available upon the written request from the user. Manufacturers shall maintain replacement parts for a minimum of five years after any design change.

3.12 Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580, as amended, to the maximum extent practicable.

4. QUALITY ASSURANCE PROVISIONS

4.1 Inspection responsibility. Except that testing for qualification shall be performed by an agency designated by the 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 examination and tests with itemized results shall be kept complete at the manufacturer's facility, available to the Government throughout the duration of the contract, or a minimum of two years, whichever is longer. 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.

4.1.1 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 specifications and standards to the extent specified or, if none, in accordance with this specification.

4.2 Qualification testing and inspection. Qualification testing and inspection shall consist of the following tests and inspections. Failure to meet any one or more of these requirements shall provide reason to consider the product as having failed to meet the requirement for qualification.

(a) Drawer pull test - 4.6.1
(b) Out stop test - 4.6.2
(c) Rack test - 4.6.3
(d) Service test - 4.6.4
(e) Moving test - 4.6.5
(f) Follower block test - 4.6.6
(g) Stability test - 4.6.7
(h) Interlock test - 4.6.8
(h) Lock drawer test - 4.6.9
(i) Locking mechanism service test - 4.6.10
(j) Drop test - 4.6.11
(k) Surreptitious and covert entry test - 4.6.12
(l) Finish test - 4.6.13
(j) Inspections - 4.6.14

4.3 Inspection and testing for acceptance. 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.

4.3.1 Inspection. Cabinets delivered for acceptance under contract or order shall be inspected as specified in 4.6.14. Any defect shall provide reason to reject the product. Rejected cabinets may be reworked to correct defects and they may be resubmitted for acceptance. Reworked cabinets shall be so indicated to the Government inspector.

4.3.2 Testing. Periodically, during the term of the contract, the Government inspector, at a time convenient to the Government, will select samples of the manufacturer's regular production and subject them to the tests in 4.6. This acceptance testing shall be performed by a Government agency specifically designated by the General Services Administration. Failure of the cabinet to meet any one or more of these tests shall provide reason to suspend acceptance of the manufacturer's product until the Government is satisfied that all defects have been corrected.

TABLE II. Classification of preparation for delivery defects.

| | |
|---|---|
| Markings | Omitted; incorrect; illegible; improper size; wrong location or method of application. |
| Materials | Packaging materials not as specified, missing or damaged or not serviceable. |
| Workmanship | Straps not properly tensioned. Containers inadequately closed, poor application of internal packing parts, moveable or loose parts not secured properly. |

4.4 Inspection of preparation for delivery. An inspection shall be made to determine that packaging, packing and marking comply with those specified in Section 5 of this specification. For examination of interior packaging, the sample unit shall be one shipping container fully prepared for delivery, selected at random just prior to the closing operations. Sampling shall be in accordance with MIL-STD-105. Defects of closure listed shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 with an AQL of 4.0 defects per hundred units.

4.5 Testing procedures and tests.

4.5.1 Testing agency . Qualification tests accomplished on products submitted under this specification 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 or approved by the General Services Administration.

4.5.2 Testing costs. All testing costs entailed in determining the qualification of the supplier's product, including costs of retesting a qualified product if subsequently disqualified under 3.1.1.1 or 3.1.1.2, shall be borne by the supplier, and shall be payable to the General Services Administration as directed by the Furniture Commodity Center, Federal Supply Service.

4.5.3 Test procedures. The following procedures shall govern the testing of all products 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 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.

(c) In case of failure of the sample, consideration will be given to the request of the manufacturer for submission 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 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. Appropriate security clearances may be required prior to release of information.

4.5.4 Test samples. Test samples of the class, size and design specified shall be submitted to a laboratory approved 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 necessary

to complete the testing. Samples submitted for testing, shall be provided with an identification tag which references the specification, type, class, size, and design.

4.5.5 Drawings and list of materials. The manufacturer shall furnish two complete sets of construction and assembly drawings and lists of materials with samples submitted for qualification. When the samples are tested and are approved for inclusion on the applicable QPL, three additional sets of the drawings and lists of materials shall be furnished and shall be marked by the General Services Administration with the Government's approval. Drawings will be used in inspections of products offered under contract. All material so furnished by the manufacturer will be held in proprietary confidence.

4.5.5.1 Changes in construction or drawings. Once a product has been tested and approved for QPL, no subsequent change of any kind shall be made in its construction or in the construction drawings unless prior written authorization to make a change is obtained by the manufacturer from the Federal Supply Service, General Services Administration.

4.6 Test methods. Unless otherwise indicated herein, all cabinet drawers shall be loaded with the 36.3 kg. The weight shall be evenly distributed from front to back and side to side within the drawers. The cabinet with all drawers loaded shall be placed in its normal operating position on a solid floor surface. Examination shall then be made to determine the operation of all component parts, including the lock and locking mechanism, the drawer latches and pulls, and drawer suspensions. The drawer pull test in 4.6.1 shall be conducted at any time during the examination. Failure of the cabinet to comply with any specification requirement shall provide reason to reject the cabinet sample. Upon successful completion of the initial examination, the cabinet shall then be subjected to the tests in 4.6.2 through 4.6.11.

4.6.1 Drawer pull test. The drawer shall be loaded with the applicable weight specified in 4.6. The force required to move the drawer outward (not less than 25 mm from its fully closed position) to its fully open position, and the force to move the drawer inward from the fully open position to the point where it contacts the latch or lock mechanism shall not exceed 44.5 N.

4.6.2 Out stop test. The drawers shall be loaded as specified in 4.6. A limp cable shall be attached to the center of the pull or handle and extended horizontally to and over a pulley. The opposite end of the cable shall extend downward, and a weight equal to 20% of the drawer load shall be attached to the free end. The drawer shall be released; permitting the weight to land on a platform when the drawer is within 150 mm of full extension. The drawer movement shall continue, without application of further force, until the drawer contacts the out stops. The test

shall be repeated three times. Any deformation of the stop shall be considered a failure.

4.6.3 Rack test. The cabinet with all drawers loaded as specified in 4.6 shall be raised not less than 25 mm to a position of being supported at two diagonally opposite corners. The area of support shall be not greater than 150 mm from each corner. 113.5 kilograms of weight shall be still loaded on the cabinet top at each of the two unsupported corners. The cabinet shall remain in this position for not less than 24 hours. The cabinet shall then be returned to its normal upright level position and examined as specified in 4.6. Failure of any moving part, including the drawer test in 4.6.1, or any resulting damage to the security protection afforded by the cabinet shall be considered as failure to meet the test requirements.

4.6.4 Service test. Prior to the test the cabinet shall be loaded as specified in 4.6. The drawer selected for the test shall be connected by its drawer pull to a test machine which shall operate the drawer in and out on the drawer suspension. The machine shall have a positive means (no springs) for adjusting its stroke so that the drawer will travel its full distance (6 mm clearance is permitted at the end of each stroke). The machine shall in no way contribute to the support of the drawer. The machine shall drive the drawer at a rate of 20 cycles per minute, +2 cycles for 50,000 cycles. The drawer suspension shall be cleaned and lubricated with a lubricant recommended by the manufacturer at the end of 10,000 cycles and shall have no further servicing during the test. The drawer shall be examined and subjected to the pull test in 4.6.1 and the out stop test in 4.6.2 at the beginning of the test and at each increment of 10,000 cycles. The drawer suspension shall have failed the test if the drawer operating force exceeds 44.5 N at any time during the test.

4.6.5 Moving test. The cabinet with all drawers loaded with typical filing material of the applicable weight specified in 4.6 and with the follower block drawn up tight against the filing material, shall be tipped backwards to a 45 degree angle. The cabinet shall remain in this tilted position for not less than three hours. At the end of this time it shall be returned to its normal upright position and examined in compliance with 4.6. There shall be no damage to the cabinet or its component or displacement of the drawer's contents as a result of the test. Failure of the test shall provide reason to reject the sample.

4.6.6 Follower block test. A drawer of the cabinet shall be loaded with 18.2 kg of typical filing material which shall be held against the front of the drawer by the follower block. The location of the follower block shall be indicated by a mark placed on the bottom of the drawer. The machine specified in 4.6.3 for operating the drawer shall be connected to the drawer and set in motion and made to operate for 500 cycles. Upon

completion of 500 cycles of operation, the position of the follower block shall again be indicated by a mark on the bottom of the drawer. Any rearward movement of the follower block, as indicated by the distance between the two marks, shall not exceed 13 mm. The follower block shall be examined for compliance with 3.3.5.1 or 3.3.5.2, as applicable.

4.6.7 Stability test. The file shall be leveled in its normal operating position. The top drawer shall be extended to its fullest extension and loaded as specified in 4.6. All other drawers shall be empty and closed. A horizontal pull of 67 N shall be applied to the normal hand pull location of the top drawer. The file shall not tip over.

4.6.8 Interlock test. The file shall be leveled in its normal operating position. One drawer shall be extended to activate the interlock mechanism. An attempt shall be made to open each of the other drawers. A force of 67 N shall be applied to the drawer pull or handle. The drawer may be jiggled and an upward force may be applied to attempt to bypass the interlock. Opening of any other drawer or damage to the interlock mechanism shall be considered as failure to comply with the requirement.

4.6.9 Lock drawer test. The cabinet shall be secured to prevent tipping and all drawers shall be loaded as specified in 4.6. The cabinet shall be unlocked and all drawers opened. The locking mechanism design shall be examined to determine whether any drawer positions will provide the greatest potential for failure of this test (i.e., all drawers fully opened, one drawer partially open, etc.). The non-lock drawer(s) shall be positioned as determined above. If several drawer positions offer equal potential for failure, each setup shall be tested. Testing shall be made by one of the following methods, as appropriate:

(1) Cabinets with a locking mechanism designed to permit the lock drawer to be closed but prevent it from being secured (locked) until all other drawers are fully closed, shall have a torque not to exceed 67.8 N-m applied to the lock drawer control handle of the closed lock drawer in an attempt to activate the locking mechanism and secure the lock drawer and leave any drawer unsecured. In the event it is possible to secure the lock drawer and leave any drawer unlocked, the cabinet shall have failed to withstand the test.

(2) Cabinets with the locking mechanism designed to hold the lock drawer open until all other drawers are fully closed shall have a force not to exceed 222.4 N applied against the front face of the lock drawer in an attempt to override the locking mechanism and close and secure the lock drawer and leave any drawer unlocked. If this is possible, the cabinet shall have failed the test.

4.6.10 Locking mechanism service test. Prior to the test the locking mechanism shall be examined. The lock drawer shall be loaded as specified in 4.6. The locking mechanism shall be operated for 10,000 cycles. One cycle shall consist of operating the lock drawer handle to retract the locking bolts, extending the drawer, if necessary to unlock the remaining drawers, then returning the drawer to the fully locked condition. Any damage to the locking mechanism shall be considered a failure.

4.6.11 Drop test. Each drawer of the cabinet shall be loaded with 27.24 kg, which shall be compacted and held in place by the follower block. The cabinet shall be locked. The cabinet shall be tilted backwards until overbalanced and allowed to free-fall squarely on its back to a hard level concrete surface. With the cabinet on its back, the top end shall be raised and allowed to rest on a 100 mm high ledge or support. The opposite end (base) shall then be elevated to a height of 914 mm and allowed to free-fall to the concrete surface. The cabinet shall then be placed so that it rests on one side. The base edge shall be placed on a 100 mm high ledge and the top edge shall be raised to a height of 914 mm and allowed to free fall to the concrete surface. The cabinet shall be turned on its opposite side and the test repeated. The cabinet shall then be returned to its upright position and examined for damage. Any damage to the cabinet which results in a lockout requiring the application of destructive force to reduce, shall provide reason to consider the cabinet as having failed the test. Any damage which results in the failure of any design feature incorporated in the cabinet to provide protection against entry shall constitute failure of the test.

4.6.12 Surreptitious and covert entry tests. There shall be sufficient time and opportunity to study the design and construction of the cabinet and to develop testing methods prior to the start of testing. There shall be no limit to the number of methods of surreptitious and covert 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 covert entry test on the cabinet is in progress and shall be exclusive of time required for safety precautions and rest periods.

4.6.12.1 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 68 kg. 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 760 mm. 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 a two cases or

bags, each case or bag not exceeding 0.04 cubic meters in volume. The total weight of the tools used in a single test shall not exceed of 68 kg, 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 test tools and devices selected for a particular attempt shall be weighed prior to commencement of the test.

4.6.12.2 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 or covert 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.

4.6.13 Finish test.

4.6.13.1 Bend test. If a metal case is used, a 0.9 mm panel, of the same metal, prepared as specified in 3.5.2 shall, at room temperature, be bent around a 6 mm rod to an angle of 180 degrees and then examined for compliance with 3.5.2.

4.6.14 Inspection. A visual inspection shall be made of the product to determine compliance with the requirements specified in the following paragraphs:

| | |
|---|---|
| 3.2 | Material |
| 3.3.2 | Dimensions and weight |
| 3.3.3 | Assembly |
| 3.3.4 | Drawers, including design, construction, face hardware, stops and latching mechanism |
| 3.3.5 | Follower block |
| 3.3.6 | Drawer suspensions |
| 3.3.7 | Drawer dimensions |
| 3.4 | Locking mechanism and lock |
| 3.5 | Pretreatment and finish |
| 3.8 | Cabinet labels |
| 3.9 | Workmanship |

5. PREPARATION FOR DELIVERY

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

5.1.1 Levels A and B. Each filing cabinet shall have the follower blocks (or other internal parts that can come loose in handling and transit) secured in place with pressure sensitive

tape, packing clips or other suitable means. A printed spare parts list (see 3.12) shall be placed inside the top drawer. Cellulose wadding strips or non-abrasive cushioning pads, not less than .3 mm thick shall be used on the top and side edges of each drawer front to prevent metal to metal contact when closed. The entire cabinet, except for the bottom, shall be covered with a bag made of polyethylene film not less than .076 mm thick.

5.1.2 Level C. Each cabinet shall be prepared for packing to insure adequate protection against abrasion and damage during shipment.

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

5.2.1 Level A. Each cabinet packaged as specified in 5.1.1, shall be packed in a tight-fitting box conforming to PPP-B-601, overseas type, styles C or I or to PPP-B-621, Class 2 with the exception that the weight limit of 454 kg is increased to 545 kg. The interior packing shall be as specified in 5.2.2. The contents of each box shall be waterproofed by means of case liners constructed and sealed in accordance with MIL-L-10547. The box shall be closed and strapped or reinforced in accordance with the appendix to the box specification.

5.2.2 Level B. Each container packaged as specified in 5.1.1 shall be packed as specified in 5.2.1, except that the containers shall be domestic class and type, and the case liners shall not be required. "L" shaped pads, molded or folded, extending at least 80% of the cabinet height, shall be cursed in all four corners of the pack. The corner pads shall provide a minimum inside face of 60 mm and a clearance not less than 15 mm between the cabinet (including face hardware) and the inside walls of the box. Additional form fitting top corner pads or a corrugated fiberboard spring pad (full inside length and width of the box) shall be used on top of the cabinet to provide a minimum clearance of 15 mm between the cabinet top and the box. The box shall be closed and strapped in accordance with the appendix to the applicable box specification.

5.2.3 Level C. Each cabinet, packaged as specified in 5.1.2, shall individually packed in a box that will assure acceptance and safe delivery in compliance with National Motor Freight Classification and the Uniform Freight Classification.

5.3 Marking. Marking shall be in accordance with 5.3.1 or 5.3.2, as specified (see 6.2) and shall include all precautionary marking required by the National Motor Freight Classification and the Uniform Freight Classification for furniture items as described in this specification.

5.3.1 Civil agencies. Each shipping container shall be marked in accordance with Fed. Std. No. 123.

5.3.2 Military activities. Each shipping container shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. Cabinets furnished under this specification are intended for the filing and storing of secret or confidential classified material as prescribed by the using activity.

6.2 Ordering data. Purchasers should exercise any desired options offered herein, and procurement documents should specify the following:

(a) Title, symbol and date of this specification.
(b) Style and size required.
(c) If Style B, width required.
(d) If Design ML is required.
(e) Color of finish.
(f) Levels of packaging, packing and marking required.

6.3 Qualification. With respect to the products requiring qualification, awards will be made only for such products as have, prior to the time set in the solicitation for bids or request for proposal, 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 the manufacturers are urged to arrange to have products that they propose to offer 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 the Furniture Commodity Center, Engineering Division, General Services Administration, Washington, DC 20406, and information pertaining to qualification may be obtained from that activity.

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 one or more drawers 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 re-locking 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.

6.4.7 Control drawer. The drawer in which the lock is mounted.

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 to and from the point where the tests are performed. All tested samples shall become 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 respect to that of the qualified sample for use in 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 products list.

6.6 Special techniques. Information relating to the requirements of 3.4.4 in respect to special techniques will be disclosed to qualified suppliers and personnel of the Federal agencies on a need to know basis.

6.7 Reference identification number (RIN). A reference identification number system has been established for this item.

AAF2815- S B 1 Explanation of reference part number codes for AAF2815-SB1

Color:
- 1 - Gray
- 2 - Black
- 3 - Parchment

Size:
- A - Size I
- B - Size IV
- C - Size V
- D - Size X

Design:
- S - Single lock
- M - Multilock

Preparing activity:
GSA

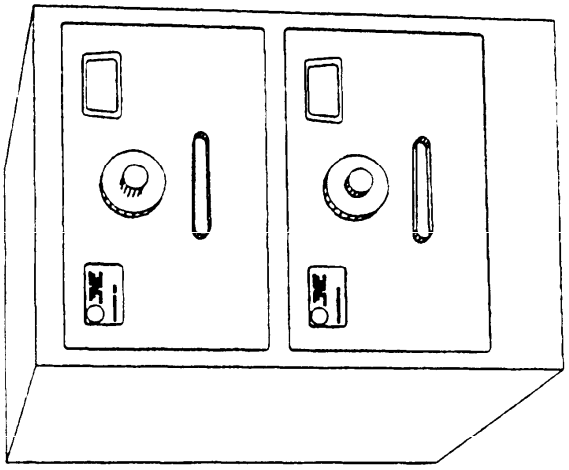

FIGURE 2

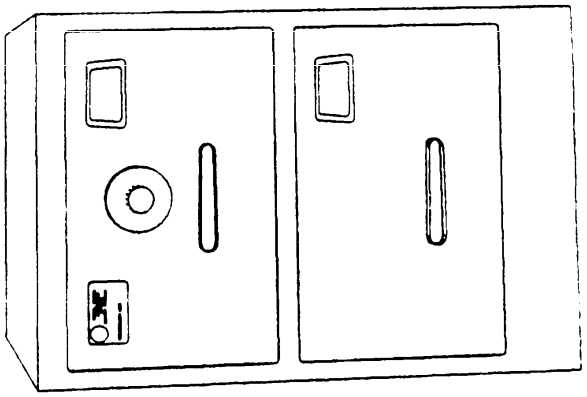

FIGURE 1

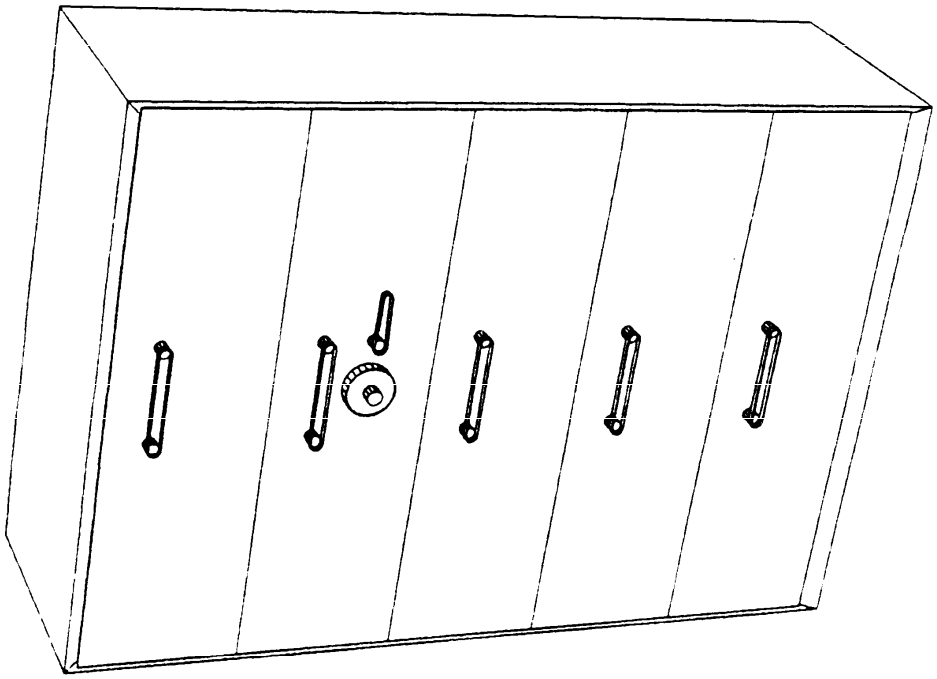

FIGURE 3