



NATIONAL SECURITY AGENCY
CENTRAL SECURITY SERVICE
NSA/CSS POLICY MANUAL 9-12



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NSA/CSS STORAGE DEVICE SANITIZATION MANUAL

PURPOSE AND SCOPE

This manual provides guidance for sanitization of information system (IS) storage devices for disposal or recycling in accordance with NSA/CSS Policy Statement 9-12, “NSA/CSS Storage Device Sanitization” ([Reference a](#)). Information stored on these devices may range from UNCLASSIFIED to TOP SECRET and may include compartmented, sensitive, or limited-distribution material. This manual also provides information on how to obtain NSA/CSS Evaluated Products Lists and hard disk drive crushers that meet NSA/CSS specifications.

This manual applies to all NSA/CSS elements and pertains to all IS storage devices utilized by NSA/CSS elements, contractors, and personnel.

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This Policy Manual 9-12 supersedes NSA/CSS Policy Manual 9-12 dated 13 March 2006.
OPI: Center for Storage Device Sanitization Research.

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PROCEDURES

1. Guidance for the sanitization and release of IS storage devices not covered by this document may be obtained by submitting all pertinent information to NSA/CSS (Attention: LL25 Center for Storage Device Sanitization Research, 301-688-1053, csdsr@nsa.gov).

MAGNETIC STORAGE DEVICES

2. Magnetic Tapes

a. Sanitization: Sanitize magnetic tapes using one of the following procedures. Remove all labels or markings that indicate previous use or classification.

1) *Degaussing*: Degauss using an NSA/CSS evaluated *degausser*; see [Reference b](#).

2) Incineration: Material must be reduced to ash.

b. *Declassification*: Declassify magnetic tapes only after approved verification and review procedures are completed per [Reference c](#).

c. Release: Unless otherwise specified by the appropriate IS Security Officer (or equivalent), declassified magnetic tapes may be released for disposal or recycling only after sanitization procedures and a declassification review have been completed per [Reference c](#).

3. Magnetic Disks: Magnetic disks include hard disk drives and diskettes.

a. Hard Disk Drives

1) Sanitization: Sanitize hard disk drives using one of the following procedures. Remove all labels or markings that indicate previous use or classification.

a) Automatic Degausser: Degauss using an NSA/CSS evaluated degausser; see [Reference b](#). It is highly recommended to physically damage the hard disk drive by deforming the internal platters prior to release by any means or by using a hard disk drive crusher (contact the Center for Storage Device Sanitization Research for further information on hard disk drive crushers).

b) Degaussing Wand: Sanitize hard disk drives by disassembling the device and erasing all surfaces of the enclosed platters with an NSA/CSS evaluated hand-held degaussing wand; see [Reference b](#). It is highly recommended to physically damage the hard disk drive by

deforming the internal platters prior to release by any means or by using a hard disk drive crusher (contact the Center for Storage Device Sanitization Research for further information on hard disk drive crushers).

c) Disintegration: Disintegrate into particles that are nominally 2 millimeter edge length in size. It is highly recommended to disintegrate hard disk drive storage devices in bulk lots with other storage devices.

d) Incineration: Internal platter coating must be reduced to ash and/or internal platters must be physically deformed from heating.

2) Declassification: Declassify hard disk drives only after approved verification and review procedures are completed per [Reference c](#).

3) Release: Unless otherwise specified by the appropriate IS Security Officer (or equivalent), declassified hard disk drives may be released for disposal or recycling only after sanitization procedures and a declassification review have been completed per [Reference c](#).

b. Diskettes

1) Sanitization: Sanitize diskettes by using one of the following procedures. Remove all labels or markings that indicate previous use or classification.

a) Degaussing: Degauss the diskettes in an NSA/CSS evaluated degausser; see [Reference b](#).

b) Disintegration: Disintegrate diskettes using an NSA/CSS evaluated disintegrator; see [Reference d](#).

c) Incineration: Material must be reduced to ash.

d) Shredding: Shred diskettes using an NSA/CSS evaluated crosscut shredder; see [Reference e](#). Remove diskette cover and metal hub prior to shredding.

2) Declassification: Declassify diskettes only after approved verification and review procedures are completed per [Reference c](#).

3) Release: Unless otherwise specified by the appropriate IS Security Officer (or equivalent), declassified diskettes may be released for disposal or recycling only after sanitization procedures and a declassification review have been completed per [Reference c](#).

OPTICAL STORAGE DEVICES

4. Optical storage devices include compact disks (CDs), digital versatile disks (DVDs), and Blu-ray disks (BDs).

a. Sanitization: Sanitize optical storage devices using one of the following procedures. Remove all labels or markings that indicate previous use or classification.

1) Disintegration: Use an NSA/CSS evaluated disintegrator (see [Reference d](#)) to sanitize CD and DVD storage devices. BDs cannot be sanitized by this method.

2) Embossing/Knurling: Use an NSA/CSS evaluated optical storage device embosser/knurler (see [Reference f](#)) to sanitize CD and DVD storage devices. BDs cannot be sanitized by this method.

3) Grinding: Use an NSA/CSS evaluated optical storage device grinder (see [Reference f](#)) to sanitize CD storage devices. DVDs or BDs cannot be sanitized by this method.

4) Incineration: Material must be reduced to ash.

5) Shredding: Use an NSA/CSS evaluated optical storage device shredder (see [Reference f](#)) to sanitize CD and DVD storage devices. BDs cannot be sanitized by this method.

b. Declassification: Declassify optical storage devices only after approved verification and review procedures are completed per [Reference c](#).

c. Release: Unless otherwise specified by the appropriate IS Security Officer (or equivalent), declassified optical storage devices may be released for disposal or recycling only after sanitization procedures and a declassification review have been completed per [Reference c](#).

SOLID STATE STORAGE DEVICES

5. Solid state storage devices include random access memory (RAM), read only memory (ROM), Field Programmable Gate Array (FPGA), Smart Cards, and flash memory.

a. Sanitization: Sanitize solid state devices using one of the following procedures. Remove all labels or markings that indicate previous use or classification.

1) Disintegration: Disintegrate into particles that are nominally 2 millimeter edge length in size using an NSA/CSS evaluated solid state

disintegrator; see [Reference g](#). It is highly recommended to disintegrate solid state storage devices in bulk lots with other storage devices.

2) Incineration: Material must be reduced to ash.

3) Power Removal: Sanitize DRAM (dynamic random-access memory), SRAM (static random-access memory), and Volatile FPGA by removing the power, including backup batteries. Once power is removed, sanitization is instantaneous.

4) Strip Shredding or Cutting: Sanitize Smart Cards using one of the following procedures.

a) Strip Shredding: A strip shredder with a maximum width of 2 millimeters will destroy the microchip, barcode, magnetic strip and written information on the Smart Card. Smart Cards must be inserted diagonally into the strip shredder at a 45-degree angle for proper sanitization.

NOTE: A CROSS CUT SHREDDER WILL NOT SANITIZE SMART CARDS.

b) Cutting: Cut the Smart Card into strips diagonally at a 45-degree angle, insuring that the microchip is cut through the center. Insure that the barcode, magnetic strip, and written information are cut into several pieces and the written information is unreadable.

b. Declassification: Declassify solid state storage devices only after approved verification and review procedures are completed per [Reference c](#).

c. Release: Unless otherwise specified by the appropriate IS Security Officer (or equivalent), declassified solid state storage devices may be released for disposal or recycling only after sanitization procedures and a declassification review have been completed per [Reference c](#).

HARD COPY STORAGE DEVICES

6. Hard copy storage devices include paper, microforms, and cathode ray tube and plasma monitors with [burn-in](#).

a. Sanitization: Sanitize hard copy storage devices using one of the following procedures.

1) Sanitize paper by using one of the following procedures.

a) Burning: Material must be reduced to ash.

b) Chopping, pulverizing, wet pulping: Material residue must be reduced to pieces 5 millimeters square or smaller.

c) Disintegration: Disintegrate paper using an NSA/CSS evaluated disintegrator; see [Reference d](#).

d) Shredding: Shred paper using an NSA/CSS evaluated crosscut shredder; see [Reference e](#).

2) Sanitize microforms by burning. Material must be reduced to ash.

3) Sanitize cathode ray tube and plasma monitors exhibiting burn-in by destroying the surface of the monitor into pieces no larger than 5 centimeters square.

b. Declassification: Declassify hard copy storage devices only after approved verification and review procedures are completed per [Reference c](#).

c. Release: Unless otherwise specified by the appropriate IS Security Officer (or equivalent), declassified hard copy storage devices may be released for disposal or recycling only after sanitization procedures and a declassification review have been completed per [Reference c](#).

RESPONSIBILITIES

7. Logistics Services Center for Storage Device Sanitization Research (LL25) shall provide technical guidance for the sanitization and release of IS storage devices.

8. NSA/CSS and all elements using this manual shall:

a. Protect classified or sensitive information and make final decisions to declassify or release IS storage devices or refer to their IS security officer for guidance;

b. Maintain records for the sanitization, declassification, and release of classified or sensitive information on IS storage devices when the procedures per this manual cannot be implemented due to time or fiscal constraints;

c. Comply with Intelligence Community Directive 503, "Intelligence Community Information Technology Systems Security Risk Management, Certification and Accreditation" ([Reference h](#)); and

d. Ensure that all media considered to be *Agency Owned Accountable Property (AOAP)* is administered in accordance with NSA/CSS's Property Management policies and procedures ([Reference i](#)). Proper documentation is needed for media that meets the AOAP criteria and is designated for destruction. This documentation will ensure the

accountability and traceability of all AOAP. For specific guidance on these policies and procedures please contact your organization's Property Officer.

REFERENCES

9. References:

- a. [NSA/CSS Policy 9-12](#), "NSA/CSS Storage Device Sanitization," dated [new date].
- b. [NSA/CSS "Degausser Evaluated Products List"](#) as amended.
- c. NSA/CSS Policy 6-22, "Label, Declassification and Release of NSA/CSS Information Storage Media," dated 3 January 2008 and revised 8 November 2013.
- d. [NSA/CSS EPL 02-02](#), "NSA/CSS Evaluated Products List for High Security Disintegrators," as amended.
- e. [NSA/CSS EPL 02-01](#), "NSA/CSS Evaluated Products List for High Security Crosscut Paper Shredders," as amended.
- f. [NSA/CSS EPL 04-02](#), "NSA/CSS Evaluated Products List for Optical Media Destruction Devices," as amended.
- g. [NSA/CSS EPL 13-09](#), "NSA/CSS Evaluated Products List for High Security Solid State Destruction Devices," as amended.
- h. Intelligence Community Directive 503, "Intelligence Community Information Technology Systems Security Risk Management, Certification and Accreditation," dated 15 September 2008.
- i. NSA/CSS Financial Management Manual 7-2, Volume 4, Chapter 6, "Property, Plant, and Equipment," and Chapter 6 Annexes (various dates).

DEFINITIONS

10. Agency Owned Accountable Property(AOAP) – Includes (a) Capitalized PP&E (property, plant, and equipment) items (cost equals or exceeds the DoD capitalization threshold of \$100,000); (b) PP&E items with a cost that is less than the DoD capitalization threshold but equals or exceeds the DoD accountability threshold of \$5,000; (c) All personal and portable computing devices (e.g., desktop computers, laptops, PalmPilots (hand held computers), PDAs (personal digital assistant), and servers, including Special Government Design, regardless of cost); (d) Stewardship Land; (e) Heritage assets, regardless of cost; (f) Classified Items – material that requires protection in the interest of national security; (g) Sensitive Items – property requiring a high degree of protection and control as determined by legal and regulatory requirements (for example: weapons, drugs); (h) Pilferable Items – property subject to theft for

resale, personal use, or personal possession (for example: VCRs, televisions, or other items listed on the pilferable list).

11. Burn-In – A tendency for an image that is shown on a display over a long period of time to become permanently fixed on the display. This is sometimes seen in emissive displays such as cathode ray tube and plasma, because chemical changes can occur in the phosphors when exposed repeatedly to the same electrical signals.

12. Declassification – An administrative decision/action, based on a consideration of risk by the owner, whereby the classification of a properly sanitized storage device is downgraded to UNCLASSIFIED.

13. Degausser – An electrical device or permanent magnet assembly which generates a coercive magnetic force for the purpose of degaussing magnetic storage devices or other magnetic material.

14. Degaussing (or Demagnetizing) – Process for reducing the magnetization of a storage device to zero by applying a reverse (coercive) magnetizing force, rendering any previously stored data unreadable and unintelligible, and ensuring that it cannot be recovered by any technology known to exist.

15. Information System (IS) Storage Devices – The physical storage devices used by an IS upon which data is recorded.

16. Recycling – End state for IS storage devices processed in such a way as to make them ready for reuse, to adapt them to a new use, or to reclaim constituent materials of value.

17. Sanitization – The removal of information from the storage device such that data recovery using any known technique or analysis is prevented. Sanitization includes the removal of data from the storage device, as well as the removal of all labels, markings, and activity logs. The method of sanitization varies depending upon the storage device in question, and may include degaussing, incineration, shredding, grinding, embossing, etc.