Data Destruction Procedure

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**Internal INFORMATION**

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# Introduction

## Document Definition

This document is a Procedure.

For a full description of document types, see *XXXX-POL-ALL-001 - Information Security Policy Framework*

## Objective

The objective of this procedure is to outline the proper disposal of media at XXXX

These rules are in place to protect sensitive and classified information, employees and customers.

## Scope

### Applicability to employees

XXXX refers to XXXX as well as its majority-owned subsidiaries and joint ventures (if applicable). This procedure applies to all employees, officers, members of Board of Directors, and all consultants, and contractors.

### Applicability to External Parties

Relevant procedure statements will apply to any external party and be included in contractual obligations on a case-by-case basis.

### Applicability to Assets

This procedure applies to all information assets globally owned by XXXX, or where XXXX has custodial responsibilities.

## Related Documents / References

* *XXXX-POL-ALL-001 - Information Security Policy Framework*

# Procedure Statements

## Disposal Method in use by the XXXX

|  |  |
| --- | --- |
|  |  |
| **Type** | **Description** |
| Disposal | Disposal is the act of discarding media with no other sanitization considerations. This is  most often done by paper recycling containing non-confidential information but may also  include other media. |
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|  |  |
| Clearing | Clearing information is a level of media sanitization that would protect the confidentiality of  information against a robust keyboard attack. Simple deletion of items would not suffice for  clearing. Clearing must not allow information to be retrieved by data, disk, or file recovery  utilities. It must be resistant to keystroke recovery attempts executed from standard input |
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| --- | --- |
| T**ype** | **Description** |
|  | devices and from data scavenging tools. For example, overwriting is an acceptable method  for clearing media.  There are overwriting software or hardware products to overwrite storage space on the  media with non-sensitive data. This process may include overwriting not only the logical  storage location of a file(s) (e.g., file allocation table) but also may include all addressable  locations. The security goal of the overwriting process is to replace written data with  random data. Overwriting cannot be used for media that are damaged or not writeable.  The media type and size may also influence whether overwriting is a suitable sanitization  method  Studies have shown that most of today’s media can be effectively cleared by one overwrite. |
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| Purging | Purging information is a media sanitization process that protects the confidentiality of  information against a laboratory attack. For some media, clearing media would not suffice  for purging. However, for ATA disk drives manufactured after 2001 (over 15 GB) the  terms clearing and purging have converged.  A laboratory attack would involve a threat with the resources and knowledge to use  nonstandard systems to conduct data recovery attempts on media outside their normal  operating environment. This type of attack involves using signal processing equipment and  specially trained personnel.  Executing the firmware Secure Erase command (for ATA drives only) and degaussing are  examples of acceptable methods for purging. Degaussing of any hard drive assembly  usually destroys the drive as the firmware that manages the device is also destroyed.  Degaussing is exposing the magnetic media to a strong magnetic field in order to disrupt  the recorded magnetic domains. A degausser is a device that generates a magnetic field  used to sanitize magnetic media. Degaussers are rated based on the type (i.e., low energy  or high energy) of magnetic media they can purge. Degaussers operate using either a  strong permanent magnet or an electromagnetic coil. Degaussing can be an effective  method for purging damaged media, for purging media with exceptionally large storage  capacities, or for quickly purging diskettes. Degaussing is not effective for purging  nonmagnetic media, such as optical media [compact discs (CD), digital versatile discs  (DVD), etc.).  If purging media is not a reasonable sanitization method for organizations, this guide  recommends that the media be destroyed. |
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| Destroying | Destruction of media is the ultimate form of sanitization. After media are destroyed, they  cannot be reused as originally intended. Physical destruction can be accomplished using a  variety of methods, including disintegration, incineration, pulverizing, shredding, and  melting.  If destruction is decided upon due to the high security categorization of the information or  due to environmental factors, any residual medium should be able to withstand a laboratory  attack.  *Disintegration, Incineration, Pulverization, and Melting.* These sanitization methods  are designed to completely destroy the media. They are typically carried out at an  outsourced metal destruction or incineration facility with the specific capabilities to  perform these activities effectively, securely, and safely.  *Shredding.* Paper shredders can be used to destroy flexible media such as  diskettes once the media are physically removed from their outer containers. The  shred size of the refuse should be small enough that there is reasonable assurance  in proportion to the data confidentiality level that the information cannot be  reconstructed.  Optical mass storage media, including compact disks (CD, CD-RW, CD-R, CD-ROM), optical disks (DVD), and magneto-optic (MO) disks must be destroyed by pulverizing, crosscut shredding or burning.  Destruction of media should be conducted only by trained and authorized personnel. Safety, hazmat, and special disposition needs should be identified and addressed prior to conducting any media destruction. |
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## Reuse of Media

A key decision on sanitization is whether the media are planned for reuse or recycle. Often, some forms of media are reused to conserve the XXXX’s resources. If this option is used, then clearing of the data on media should be implemented before reallocation

## Documentation

Documentation of media to be disposed is under the purview of IT department and they are to keep records of all media disposed and carry out the disposal appropriately.

The following information on all media disposed must be kept by IT department. The disposal must be carried out with the data owner and information security officer

**Item Description**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Make/Model**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Serial Number(s)/Property Number(s)**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- |
| **Backup Made of Information**: | Yes |
|  | No |

**If Yes, Backup Location:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Item Disposition**: | Clear | **Date Conducted**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Purge | **Conducted By**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Destroy | **Phone #**: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |  | **Validated By**: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |  | **Phone #**: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Sanitization Method Used**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Final Disposition of Media**:  Disposed

 Reused Internally

 Reused Externally

 Returned to Manufacturer

 Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Media Disposal Guide for IT

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Media Type** |  | **Clear** | **Purge** | **Physical Destruction** |
|  | **Hard Copy Storages** | |  |  |  |
|  |  | |  |  |  |
|  | Paper and |  | See Physical Destruction. | See Physical Destruction. | Destroy paper using cross cut shredders which |
|  | microforms |  |  |  | produce particles that are 1 x 5 millimeters in |
|  |  |  |  |  | size (reference devices on the NSA paper |
|  |  |  |  |  | Shredder EPL), or to pulverize/disintegrate paper |
|  |  |  |  |  | materials using disintegrator devices equipped |
|  |  |  |  |  | with 3/32 inch security screen (reference NSA |
|  |  |  |  |  | Disintegrator EPL.). |
|  |  |  |  |  | Destroy microforms (microfilm, microfiche, or |
|  |  |  |  |  | other reduced image photo negatives) by |
|  |  |  |  |  | burning. When material is burned, residue must |
|  |  |  |  |  | be reduced to white ash. |
|  |  |  |  |  |  |
|  | **Hand-Held Devices** | |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Media Type** |  | **Clear** | **Purge** |  | **Physical Destruction** |  |
|  | Cell Phones |  | Manually delete all | Same as Clear. |  | Shred. |  |
|  |  |  | information, such as calls |  |  | Disintegrate. |  |
|  |  |  | made, phone numbers, then |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  | perform a full manufacturer’s |  |  | Pulverize. |  |
|  |  |  | reset to reset the cell phone |  |  | Incinerate by burning cell phones in a licensed |  |
|  |  |  | back to its factory default |  |  |  |
|  |  |  | settings. |  |  | incinerator. |  |
|  |  |  | \*\* Please contact the |  |  |  |  |
|  |  |  | manufacturer for proper |  |  |  |  |
|  |  |  | sanitization procedure. |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Personal Digital |  | Manually delete all | Same as Clear. |  | Incinerate PDAs by burning the PDAs in a |  |
|  | Assistant (PDA) |  | information, then perform a |  |  | licensed incinerator. |  |
|  | (Palm, PocketPC, |  | manufacturer’s hard reset to |  |  | Shred. |  |
|  | other) |  | reset the PDA to factory |  |  |  |
|  |  |  |  |  |  |
|  |  |  | state. |  |  | Pulverize. |  |
|  |  |  | \*\* Please contact the |  |  |  |  |
|  |  |  | manufacturer for proper |  |  |  |  |
|  |  |  | sanitization procedure. |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | **Networking Devices** | |  |  |  |  |  |
|  |  | |  |  |  |  |  |
|  | Routers (home, |  | Perform a full manufacturer’s | Same as Clear. |  | Shred. |  |
|  | home office, |  | reset to reset the router back |  |  | Disintegrate. |  |
|  | enterprise) |  | to its factory default settings. |  |  |  |
|  |  |  |  |  |  |
|  |  |  | \*\* Please contact the |  |  | Pulverize. |  |
|  |  |  |  |  |  |  |
|  |  |  | manufacturer for proper |  |  | Incinerate. Incinerate routers by burning the |  |
|  |  |  | sanitization procedure. |  |  | routers in a licensed incinerator. |  |
|  |  |  |  |  |  |  |  |
|  | **Equipment** | |  |  |  |  |  |
|  |  | |  |  |  |  |  |
|  | Copy Machines |  | Perform a full manufacturer’s | Same as Clear. |  | Shred. |  |
|  |  |  | reset to reset the copy |  |  | Disintegrate. |  |
|  |  |  | machine to its factory default |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  | settings. |  |  | Pulverize. |  |
|  |  |  | \*\* Please contact the |  |  | Incinerate. Incinerate copy machines by burning |  |
|  |  |  | manufacturer for proper |  |  | the copy machines in a licensed incinerator. |  |
|  |  |  | sanitization procedure. |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Fax Machines |  | Perform a full manufacturer’s | Same as Clear. |  | Shred. |  |
|  |  |  | reset to reset the fax |  |  | Disintegrate. |  |
|  |  |  | machine to its factory default |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  | settings. |  |  | Pulverize. |  |
|  |  |  | \*\* Please contact the |  |  | Incinerate. Incinerate fax machines by burning |  |
|  |  |  | manufacturer for proper |  |  | the fax machines in a licensed incinerator. |  |
|  |  |  | sanitization procedures. |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | **Magnetic Disks** | |  |  |  |  |  |
|  |  | |  |  |  |  |  |
|  | Floppies |  | Overwrite media by using | Degauss |  | Incinerate floppy disks and diskettes by burning |  |
|  |  |  | agency-approved software |  |  | the floppy disks and diskettes in a licensed |  |
|  |  |  | and validate the overwritten |  |  | incinerator. |  |
|  |  |  | data. |  |  | Shred. |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  | Guidelines for Media Sanitization |  |
|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Physical Destruction** |  |
|  | ATA Hard Drives | Overwrite media by using | 1. Purge using a Secure |  | Disintegrate. |  |
|  |  | agency-approved and | Erase tool. |  | Shred. |  |
|  |  | validated overwriting | 2. Purge hard disk drives |  |  |
|  |  |  |  |  |
|  |  | technologies/methods/tools. | by either purging the |  | Pulverize. |  |
|  |  |  | hard disk drive in an |  | Incinerate. Incinerate hard disk drives by burning |  |
|  |  |  | approved |  |  |
|  |  |  | automatic degausser or |  | the hard disk drives in a licensed incinerator. |  |
|  |  |  | by disassembling the |  |  |  |
|  |  |  | hard disk drive and |  |  |  |
|  |  |  | purging the enclosed |  |  |  |
|  |  |  | platters with an |  |  |  |
|  |  |  | approved |  |  |  |
|  |  |  | degaussing wand.\*\* |  |  |  |
|  |  |  | 3. Purge media by using |  |  |  |
|  |  |  | agency-approved and |  |  |  |
|  |  |  | validated purge |  |  |  |
|  |  |  | technologies/tools. |  |  |  |
|  |  |  | \*\*Degaussing any current |  |  |  |
|  |  |  | generation hard disk will |  |  |  |
|  |  |  | render the drive |  |  |  |
|  |  |  | permanently unusable. |  |  |  |
|  |  |  | 1. Purge using a suitable Secure degaussing tool |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  | 2. Purge hard disk drives by |  |  |  |
|  |  |  | render the drive |  |  |  |
|  |  |  | either purging the hard |  |  |  |
|  | USB Removable | Overwrite media by using | disk drive or | Disintegrate. | |  |
|  | Media (Pen Drives, | agency-approved and | by disassembling the | Shred. | |  |
|  | Thumb Drives, | validated overwriting | hard disk drive and  purging the enclosed |  |
|  |  |  |  |
|  | Flash Drives, | technologies/methods/tools. | platters with an | Pulverize. | |  |
|  | Memory Sticks) |  | approved | Incinerate. Incinerate hard disk drives by burning | |  |
|  | with Hard Drives |  | degaussing wand.\*\* |  |
|  |  |  | 3. Purge media by using |  | the hard disk drives in a licensed incinerator. |  |
|  |  |  | approved and |  |  |  |
|  |  |  | validated purge |  |  |  |
|  |  |  | technologies/tools. |  |  |  |
|  |  |  | \*\*Degaussing any current |  |  |  |
|  |  |  | generation hard disk will |  |  |  |
|  |  |  | render the drive permanently |  |  |  |
|  |  |  | unusable. |  |  |  |
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|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Physical Destruction** |  |
|  | Zip Disks | Overwrite media by using | Degauss using a |  | Incinerate disks and diskettes by burning the zip |  |
|  |  | agency-approved and | approved degausser. |  | disks in a licensed incinerator. |  |
|  |  | validated overwriting | \*\*Degaussing any current |  | Shred. |  |
|  |  | technologies/methods/tools. |  |  |
|  |  | generation zip disks will |  |  |  |
|  |  |  |  |  |  |
|  |  |  | render the disk permanently |  |  |  |
|  |  |  | unusable. |  |  |  |
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|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Physical Destruction** |  |
|  | SCSI Drives | Overwrite media by using | Purge hard disk drives by |  | Disintegrate. |  |
|  |  | agency-approved and | either purging the hard |  | Shred. |  |
|  |  | validated overwriting | disk drive in an |  |  |
|  |  |  |  |  |
|  |  | technologies/methods/tools. | approved automatic |  | Pulverize. |  |
|  |  |  | degausser or by |  | Incinerate. Incinerate hard disk drives by burning |  |
|  |  |  | disassembling the hard |  |  |
|  |  |  | disk drive and purging the |  | the hard disk drives in a licensed incinerator. |  |
|  |  |  | enclosed platters with an |  |  |  |
|  |  |  | -approved |  |  |  |
|  |  |  | degaussing wand. |  |  |  |
|  |  |  | \*\*\*Degaussing any current |  |  |  |
|  |  |  | generation hard disk will |  |  |  |
|  |  |  | render the drive |  |  |  |
|  |  |  | permanently unusable. |  |  |  |
|  | **Magnetic Tapes** |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Reel and Cassette | Clear magnetic tapes by | Degauss using an |  | Incinerate by burning the tapes in a licensed |  |
|  | Format Magnetic | either re-recording | approved |  | incinerator. |  |
|  | Tapes | (overwriting) or degaussing. | degausser. |  | Shred. |  |
|  |  | Clearing a magnetic tape by | Purging by Degaussing: |  |  |
|  |  |  |  |  |
|  |  | re-recording (overwriting) |  | Preparatory steps, such as removing the tape from the |  |
|  |  | Purge the magnetic tape in |  |  |
|  |  | may be impractical for most |  | reel or cassette prior to destruction, are unnecessary. |  |
|  |  | any degausser that can |  |  |
|  |  | applications since the |  | However, segregation of components (tape and reels |  |
|  |  | purge the signal enough to |  |  |
|  |  | process occupies the tape |  | or cassettes) may be necessary to comply with the |  |
|  |  | prohibit playback of the |  |  |
|  |  | transport for excessive time |  | requirements of a destruction facility or for recycling |  |
|  |  | previous known signal. |  |  |
|  |  | periods. |  | measures. |  |
|  |  | Purging by degaussing can |  |  |
|  |  |  |  |  |  |
|  |  | Clearing by Overwriting: | be accomplished easier by |  |  |  |
|  |  | using an |  |  |  |
|  |  | Overwriting should be |  |  |  |
|  |  | approved degausser for the |  |  |  |
|  |  | performed on a system |  |  |  |
|  |  | magnetic tape. |  |  |  |
|  |  | similar to the one that |  |  |  |
|  |  |  |  |  |  |
|  |  | originally recorded the |  |  |  |  |
|  |  | data. For example, |  |  |  |  |
|  |  | overwrite previously |  |  |  |  |
|  |  | recorded classified or |  |  |  |  |
|  |  | sensitive VHS format video |  |  |  |  |
|  |  | signals on a comparable |  |  |  |  |
|  |  | VHS format recorder. All |  |  |  |  |
|  |  | portions of the magnetic |  |  |  |  |
|  |  | tape should be overwritten |  |  |  |  |
|  |  | one time with known non- |  |  |  |  |
|  |  | sensitive signals. |  |  |  |  |
|  |  |  |  |  |  |  |
|  | **Optical Disks** |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | CDs | See Physical Destruction. | See Physical Destruction. |  | Destroy in order of recommendations: |  |
|  |  |  |  |  | Removing the Information bearing layers of CD |  |
|  |  |  |  |  | media using a commercial optical disk grinding |  |
|  |  |  |  |  | device. |  |
|  |  |  |  |  | Incinerate optical disk media (reduce to ash) |  |
|  |  |  |  |  | using a licensed facility. |  |
|  |  |  |  |  | Use optical disk media shredders or disintegrator |  |
|  |  |  |  |  | devices to reduce to particles that have a |  |
|  |  |  |  |  | nominal edge dimensions of five millimeters (5 |  |
|  |  |  |  |  | mm) and surface area of twenty-five square |  |
|  |  |  |  |  | millimeters (25 mm**2**). \*\* |  |
|  |  |  |  |  | \*\* This is a current acceptable particle size. Any |  |
|  |  |  |  |  |  |  |

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|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Physical Destruction** |  |
|  |  |  |  |  | future disk media shredders obtained should reduce |  |
|  |  |  |  |  | CD to surface area of .25mm². |  |
|  |  |  |  |  |  |  |
|  | DVDs | See Physical Destruction. | See Physical Destruction. |  | Destroy in order of recommendations: |  |
|  |  |  |  |  | Removing the Information bearing layers of DVD |  |
|  |  |  |  |  | media using a commercial optical disk grinding |  |
|  |  |  |  |  | device. |  |
|  |  |  |  |  | Incinerate optical disk media (reduce to ash) |  |
|  |  |  |  |  | using a licensed facility. |  |
|  |  |  |  |  | Use optical disk media shredders or disintegrator |  |
|  |  |  |  |  | devices to reduce to particles that have a |  |
|  |  |  |  |  | nominal edge dimensions of five millimeters (5 |  |
|  |  |  |  |  | mm) and surface area of twenty-five square |  |
|  |  |  |  |  | millimeters (25 mm**2**). \*\* |  |
|  |  |  |  |  | \*\* This is a current acceptable particle size. Any future |  |
|  |  |  |  |  | disk media shredders obtained should reduce DVD to |  |
|  |  |  |  |  | surface area of .25mm. |  |
|  |  |  |  |  |  |  |
|  | **Memory** |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Compact Flash | Overwrite media by using | See Physical Destruction. |  | Destroy media in order of recommendations. |  |
|  | Drives, SD | agency-approved and |  |  | Shred. |  |
|  |  | validated overwriting |  |  |  |
|  |  |  |  | Disintegrate. |  |
|  |  | technologies/methods/tools. |  |  |  |
|  |  |  |  |  | Pulverize. |  |
|  |  |  |  |  | Incinerate by burning in a licensed incinerator. |  |
|  | Dynamic Random | Purge DRAM by powering off | Same as Clear. |  | Shred. |  |
|  | Access Memory | and removing the battery (if |  |  | Disintegrate. |  |
|  | (DRAM) | battery backed). |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  | Pulverize. |  |
|  |  |  |  |  |  |  |
|  | Electronically | Perform a full chip purge as | Same as Clear. |  | Shred |  |
|  | Alterable PROM | per manufacturer’s data |  |  | Disintegrate |  |
|  | (EAPROM) | sheets. |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  | Pulverize |  |
|  |  |  |  |  |  |  |
|  | Electronically | Overwrite media by using | Same as Clear. |  | Shred. |  |
|  | Erasable PROM | agency approved and |  |  | Disintegrate. |  |
|  | (EEPROM) | validated overwriting |  |  |  |
|  |  |  |  |  |
|  |  | technologies/methods/tools. |  |  | Pulverize. |  |
|  |  | Remove all labels or |  |  | Incinerate by burning in a licensed incinerator. |  |
|  |  | markings that indicate |  |  |  |  |
|  |  | previous use or |  |  |  |  |
|  |  | confidentiality. |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Destroy** |  |
|  | Erasable | Clear media in order of | Same as Clear. |  | Shred. |  |
|  | Programmable | recommendations. |  |  | Disintegrate. |  |
|  | ROM (EPROM) | 1. Clear functioning |  |  |  |
|  |  |  |  |  |
|  |  |  |  | Pulverize. |  |
|  |  | EPROM by performing an |  |  |  |
|  |  |  |  |  |  |
|  |  | ultraviolet purge according |  |  | Incinerate by burning in a licensed incinerator. |  |
|  |  | to the manufacturer's |  |  |  |  |
|  |  | recommendations, but |  |  |  |  |
|  |  | increase the time |  |  |  |  |
|  |  | requirement by a factor of |  |  |  |  |
|  |  | 3. |  |  |  |  |
|  |  | 2. Overwrite media by |  |  |  |  |
|  |  | using agency-approved and |  |  |  |  |
|  |  | validated overwriting |  |  |  |  |
|  |  | technologies/methods/tools. |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Field | Overwrite media by using | Same as Clear. |  | Shred. |  |
|  | Programmable | agency-approved and |  |  | Disintegrate. |  |
|  | Gate Array | validated overwriting |  |  |  |
|  |  |  |  |  |
|  | (FPGA) Devices | technologies/methods/tools. |  |  | Pulverize. |  |
|  | (Non-Volatile) |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Field | Clear functioning FPGA by | Same as Clear. |  | Shred. |  |
|  | Programmable | powering off and removing |  |  | Disintegrate. |  |
|  | Gate Array | the battery (if battery backed). |  |  |  |
|  |  |  |  |  |
|  | (FPGA) Devices |  |  |  | Pulverize. |  |
|  | (Volatile) |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Flash Cards | Overwrite media by using | Same as Clear. |  | Shred. |  |
|  |  | agency approved and |  |  | Disintegrate. |  |
|  |  | validated overwriting |  |  |  |
|  |  |  |  |  |  |
|  |  | technologies/methods/tools. |  |  | Pulverize. |  |
|  |  |  |  |  |  |  |
|  | Flash EPROM | Perform a full chip purge as | Purge media in order of |  | Shred. |  |
|  | (FEPROM) | per manufacturer’s data | recommendations. |  | Disintegrate. |  |
|  |  | sheets. | 1. Overwrite media by |  |  |
|  |  |  |  |  |
|  |  |  |  | Pulverize. |  |
|  |  |  | using agency approved and |  |  |
|  |  |  |  |  |  |
|  |  |  | validated overwriting |  | Incinerate by burning in a licensed incinerator. |  |
|  |  |  | technologies/methods/tools. |  |  |  |
|  |  |  | 2. Perform a full chip purge |  |  |  |
|  |  |  | as per manufacturer’s data |  |  |  |
|  |  |  | sheets. |  |  |  |
|  |  |  |  |  |  |  |
|  | Magnetic Bubble | Overwrite media by using | Purge by Collapsing the |  | Shred. |  |
|  | Memory | agency-approved and | Magnetic Bubbles: |  | Disintegrate. |  |
|  |  | validated overwriting | 1. Degaussing: Degauss in |  |  |
|  |  |  |  |  |
|  |  | technologies/methods/tools. |  | Pulverize. |  |
|  |  | an approved |  |  |
|  |  |  |  |  |  |
|  |  |  | degausser. However, care |  | When practical, the outer chassis and electronic circuit |  |
|  |  |  | must be taken to insure |  | boards should be removed from the core memory unit |  |
|  |  |  | that the full field (at least |  | to optimize the performance of the destruction device. |  |
|  |  |  | 1500 gauss) of the |  |  |  |
|  |  |  | degausser is applied to the |  |  |  |
|  |  |  | actual bubble array. All |  |  |  |
|  |  |  | shielding materials must be |  |  |  |
|  |  |  | removed from the circuit |  |  |  |
|  |  |  | card and/or bubble memory |  |  |  |
|  |  |  |  |  |  |  |

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|  |  |  |  |  | Guidelines for Media Sanitization |  |
|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Destroy** |  |
|  |  |  | device before degaussing. |  |  |  |
|  |  |  | 2. Raising the Magnetic |  |  |  |
|  |  |  | Bias Field: Magnetic bubble |  |  |  |
|  |  |  | memory with built-in |  |  |  |
|  |  |  | magnetic bias field controls |  |  |  |
|  |  |  | may be purged by raising |  |  |  |
|  |  |  | the bias voltage to levels |  |  |  |
|  |  |  | sufficient to collapse the |  |  |  |
|  |  |  | magnetic bubbles. |  |  |  |
|  |  |  | Recommend that specific |  |  |  |
|  |  |  | technical guidance be |  |  |  |
|  |  |  | obtained from the bubble |  |  |  |
|  |  |  | memory manufacturer |  |  |  |
|  |  |  | before attempting this |  |  |  |
|  |  |  | procedure. |  |  |  |
|  | Magnetic Core | Clear media in order of | Purge core memory devices |  | Shred. |  |
|  | Memory | recommendations. | either by overwriting or |  | Disintegrate. |  |
|  |  | 1. Overwrite media by | degaussing. |  |  |
|  |  |  |  |  |
|  |  | Overwrite media by using |  | Pulverize. |  |
|  |  | using agency-approved and |  |  |
|  |  |  |  |  |
|  |  | validated overwriting | agency approved and |  | When practical, the outer chassis and electronic circuit |  |
|  |  | technologies/methods/tools. | validated overwriting |  | boards should be removed from the core memory unit |  |
|  |  | 2. Degauss in an | technologies/methods/ |  | to optimize the performance. |  |
|  |  | tools |  |  |  |
|  |  | approved |  |  |  |
|  |  |  |  |  |  |
|  |  | degausser. | Degauss in an |  |  |  |
|  |  |  | approved degausser. |  |  |  |
|  |  |  | Remove all labels or |  |  |  |
|  |  |  | markings that indicate |  |  |  |
|  |  |  | previous use or |  |  |  |
|  |  |  | confidentiality. NOTE - |  |  |  |
|  |  |  | Attenuation of the |  |  |  |
|  |  |  | magnetic field due to |  |  |  |
|  |  |  | chassis shielding and |  |  |  |
|  |  |  | separation distance are |  |  |  |
|  |  |  | factors that affect erasure |  |  |  |
|  |  |  | performance and should |  |  |  |
|  |  |  | be considered. All steel |  |  |  |
|  |  |  | shielding materials (e.g., |  |  |  |
|  |  |  | chassis, case, or |  |  |  |
|  |  |  | mounting brackets) |  |  |  |
|  |  |  | should be removed |  |  |  |
|  |  |  | before degaussing. |  |  |  |
|  |  |  |  |  |  |  |
|  | Non Volatile RAM | 1. Overwrite media by using | Same as Clear. |  | Shred. |  |
|  | (NOVRAM) | agency approved and |  |  | Disintegrate. |  |
|  |  | validated overwriting |  |  |  |
|  |  |  |  |  |  |
|  |  | technologies/methods/tools. |  |  | Pulverize. |  |
|  |  | 2. Each overwrite must |  |  |  |  |
|  |  | reside in memory for a |  |  |  |  |
|  |  | period longer than the data |  |  |  |  |
|  |  | resided. |  |  |  |  |
|  |  | 3. Remove all power to |  |  |  |  |
|  |  | include battery power. |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | Guidelines for Media Sanitization |  |
|  |  |  |  |  |  |  |
|  | **Media Type** | **Clear** | **Purge** |  | **Destroy** |  |
|  | PC Cards or | See Physical Destruction. | See Physical Destruction. |  | Destroy by incinerating in a licensed incinerator or use |  |
|  | Personal |  |  |  | (an NSA evaluated) a disintegrator to reduce the |  |
|  | Computer |  |  |  | card's internal circuit board and components to |  |
|  | Memory Card |  |  |  | particles that are nominally two (2) millimeters in size. |  |
|  | International |  |  |  |  |  |
|  | Association |  |  |  |  |  |
|  | (PCMCIA) Cards |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Programmable | See Physical Destruction. | See Physical Destruction. |  | Destroy by incinerating in a licensed incinerator. |  |
|  | ROM (PROM) |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | RAM | Purge functioning DRAM by | Same as Clear. |  | Shred. |  |
|  |  | powering off and removing |  |  | Disintegrate. |  |
|  |  | the battery (if battery backed). |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  | Pulverize. |  |
|  |  |  |  |  |  |  |
|  | ROM | See Physical Destruction. | See Physical Destruction. |  | Shred. |  |
|  |  |  |  |  | Disintegrate. |  |
|  |  |  |  |  | Pulverize. |  |
|  |  |  |  |  |  |  |
|  | USB Removable | Overwrite media by using | Same as Clear. |  | Shred. |  |
|  | Media (Pen | agency approved and |  |  | Disintegrate. |  |
|  | Drives, Thumb | validated overwriting |  |  |  |
|  |  |  |  |  |
|  | Drives, Flash | technologies/methods/tools |  |  | Pulverize. |  |
|  | Drives, Memory |  |  |  |  |  |
|  | Sticks) without |  |  |  |  |  |
|  | Hard Drives |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Smart Cards | See Physical Destruction. | See Physical Destruction. |  | For smart card devices& data storage tokens that |  |
|  |  |  |  |  | are in credit card form, cut or crush the smart |  |
|  |  |  |  |  | card's internal memory chip using metals snips, a |  |
|  |  |  |  |  | pair of scissors, or a strip cut shredder (nominal 2 |  |
|  |  |  |  |  | mm wide cuts). Smart cards packaged into |  |
|  |  |  |  |  | tokens (i.e. SIM chips, thumb drives and other |  |
|  |  |  |  |  | physically robust plastic packages) that are not |  |
|  |  |  |  |  | capable of being shredded should instead be |  |
|  |  |  |  |  | destroyed via incineration licensed incinerator or |  |
|  |  |  |  |  | disintegration to 2 mm size particles. |  |
|  |  |  |  |  |  |  |
|  | **Magnetic Cards** |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Magnetic Cards | Overwrite media by using | Degauss in an |  | Shred. |  |
|  |  | agency-approved and | approved degausser. |  | Incinerate. Incineration of magnetic cards shall |  |
|  |  | validated overwriting |  |  |  |
|  |  |  |  | be accomplished by burning the magnetic cards |  |
|  |  | technologies/methods/tools. |  |  |  |
|  |  |  |  | in a licensed incinerator. |  |

# User Steps Procedure

1. Paper and hard copy documents for destruction are shredded by users with shredder provided for each department
2. Shredded items are emptied into a bin provided on all floors
3. The bins are taken out weekly by a third party vendor for final destruction
4. IT devices for destruction are registered in an excel maintained by the Head IT
5. Registered Items are handed over to third party vendor End of Life (EOL) for destruction
6. EOL send confirmation of destruction to Head IT

# Procedure Compliance & Enforcement

## Compliance Measures

Not applicable.

## Enforcement

All staff of XXXX must comply with all Information Security Procedures. Failure to comply with these procedures may result in disciplinary action in accordance with the current XXXX Human Resources policy. Disciplinary actions may include, but are not limited to:

* verbal and/or written warnings;
* instant dismissal; and
* actions by judicial and regulatory authorities.

# Glossary / Acronyms

## Glossary / Acronyms

|  |  |
| --- | --- |
| **Glossary Term** | **Definition** |
| Clear | To use software or hardware products to overwrite storage space on the media with non- |
|  | sensitive data. This process may include overwriting not only the logical storage location of |
|  | a file(s) (e.g., file allocation table) but also may include all addressable locations. See |
|  | comments on clear/purge convergence. |
| CD | Compact Disc: a class of media on which data are recorded by optical means. |
| CD-RW | Compact Disc Read/Write: A CD that can be purged and rewritten multiple times. |
| CD-R | Compact Disc Recordable: A CD that can be written on only once but read many times. |
|  | Also known as WORM. |
| Data | Pieces of information from which “understandable information” is derived. |
| Degauss | To reduce the magnetic flux to virtual zero by applying a reverse magnetizing field. Also |
|  | called demagnetizing. Degaussing any current generation hard disk (including but not |
|  | limited to IDE, EIDE, ATA, SCSI and Jaz) will render the drive permanently unusable |
|  | since these drives store track location information on the hard drive in dedicated regions of |
|  | the drive in between the data sectors. |
| Destruction | The result of actions taken to ensure that media cannot be reused as originally intended and |
|  | that information is virtually impossible to recover or prohibitively expensive. |
| Digital | The binary coding scheme generally used in computer technology to represent data as |
|  | binary bits (1s and 0s). |
| Disintegration | A physically destructive method of sanitizing media; the act of separating into component |
|  | parts. |
| Disposal | Disposal is the act of discarding media with no other sanitization considerations. This is |
|  | most often done by paper recycling containing non-confidential information but may also |
|  | include other media. |
| DVD | Digital Video Disc – a disc the same shape and size as a CD; but the DVD has a higher |
|  | density and gives the option for data to be double-sided or double-layered. |
| DVD-RW | A rewritable (re-recordable) DVD disk for both movies and data from the DVD Forum. |
| DVD+RW | A rewritable (re-recordable) DVD disk for both movies and data from the DVD+RW |
|  | Alliance. |
| DVD+R | A write-once (read only) version of the DVD+RW optical disk from the DVD+RW |
|  | Alliance. |
| DVD-R | A write-once (read only) DVD disk for both movies and data endorsed by the DVD Forum. |
| Electronic Media | General term that refers to media on which data are recorded via an electrically based |
|  | process. |
| Erasure | Process intended to render magnetically stored information irretrievable by normal means. |
| FIPS | Federal Information Processing Standard. |
| Format | Pre-established layout for data. |
| Hard Disk | A rigid magnetic disk fixed permanently within a drive unit and used for storing data. |
| Incineration | A physically destructive method of sanitizing media; the act of burning completely to |
|  | ashes. |
| Information | Meaningful interpretation or expression of data. |
| Media | Plural of medium. |

# Document Management

## Document Revision Log

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Editor** | **Revision #** | **Description of Change** |
|  |  |  |  |

## Document Ownership

This Procedure is owned by the YYYY

## Document Coordinator

This Procedure is coordinated by the YYYY

## Document Approvers

|  |  |  |
| --- | --- | --- |
| **Approver Name** | **Signature** | **Date** |
|  |  |  |

## Distribution

* *All Staff*