NSA/CSS Requirements for

Magnetic Degaussers

1 (U) Introduction

(U) Magnetic degausser must pass an evaluation by meeting requirements set by the NSA/CSS for the sanitization of classified magnetic tapes and magnetic hard disk drives. Secondarily the operational, administrative, power, safety, environmental and mechanical areas will be evaluated to minimize the potential risk.

(U) Once the evaluation is successful the NSA/CSS will include the device in the next release of the "NSA/CSS Evaluated Products List for Magnetic Degaussers". The Evaluated Products List (EPL) is meant to serve as guidance, inclusion in this document is not an endorsement by the NSA/CSS or the U.S. Government. All listed products sanitize TS/SCI and below.

2 (U) Purpose and Use

(U) This document should be used by a vendor of magnetic degaussers as a guide for the NSA/CSS evaluation. In order to be included in the NSA/CSS Evaluated Product List for magnetic degaussers a vendor must satisfy all appropriate requirements in this document. The magnetic degausser will be evaluated against a random assortment of magnetic devices it claims to destroy.

3 (U) Descriptions

- **(U) Evaluator:** The destruction engineer performing the evaluation.
- **(U) Hard Disk Drive:** A hard disk drive (sometimes abbreviated as a hard drive, HD, or HDD) is a non-volatile magnetic storage device. It is usually installed internally in a computer, attached directly to the disk controller of the computer's motherboard. It contains one or more platters, housed inside of an air-sealed casing. Data is written to the platters using a magnetic head, which moves rapidly over them as they spin. Types of disk drives are:
  - (U) 3.5" for desktop computers
  - (U) 2.5" for laptops
- **(U) Magnetic Degausser:** A device used for reducing or eliminating an unwanted magnetic field (or data) stored on tape and disk media such as computer and laptop hard drives, diskettes, reels, cassettes and cartridge tapes. When exposed to the powerful magnetic field of a degausser, the magnetic data on a tape or hard disk is neutralized, or erased.
- **(U) Magnetic Storage Device:** Generalized device that stores information using magnetic fields.

- **(U) Operator:** The person using the magnetic degausser to perform the destruction of the magnetic devices.
- **(U) Magnetic Tape:** Magnetic tape is a medium for magnetic recording, made of a thin, magnetizable coating on a long, narrow strip of plastic film.

4 (U) Operation Requirements

4.1 (U) Magnetic Degausser Passes

(U) Magnetic degaussers requiring multiple passes, adapter or disassembly of magnetic storage devices must be identified.

4.2 (U) Magnetic Degausser Permanent Sanitization

(U) A magnetic degausser must permanently destroy data from the medium.

4.3 Magnetic Degausser Verify Sanitization

(U) Electro Pulse degausser must have a built-in verification, or; Permanent magnet degausser must use DSI Field CheckR to verify that the magnet assemble is producing sufficient field strength.

4.4 Magnetic Degausser Sanitization Verification

(U) The medium must be examined independently to absolutely determine that the data has been destroyed.

4.5 Magnetic Degausser Types

(U) Magnetic degausser must specify the types of magnetic storage device it accommodates.

4.6 Magnetic Degausser Eraser Specification

(U) Magnetic degausser must erase specified magnetic storage device to the noise floor of the magnetic storage device.

4.7 Magnetic Degausser Magnetic Field

(U) Magnetic degausser must be capable of producing at least a 30,000 Gauss uniform magnetic field for secure erasure of future Energy Assisted Magnetic Recording hard disk drive storage device.

4.8 (U) Operational Time

(U) The magnetic degausser must be able to operate continuously for one hour while destroying at least 100 miscellaneous magnetic storage devices. The magnetic degausser may jam up to three times per 100 units destroyed however a jam must be cleared within 5 minutes.

5 (U) Administrative Requirements

5.1 (U) Labels

(U) The magnetic degausser must have a label that can be easily viewed and includes:

- (U) Company Name,
- (U) Model,
- (U) Serial Number.

5.2 (U) Feature Claims

(U) The magnetic degausser vendor must specify the magnetic storage devices it will destroy and the requirements it will satisfy. If a magnetic storage device is not claimed it will be not be evaluated and will not be approved to destroy that classified magnetic storage device. If a requirement is not supported the magnetic degausser may not be allowed to go through evaluation.

5.3 (U) User/Operator Guide

(U) The magnetic degausser must have an English version of the user/operator manual. The manual must include the following:

- Accurate description of the magnetic degausser,
- List of magnetic storage devices it will destroy,
- Accurate summary of each feature and function,
- List of specifications (i.e., power consumption, motor size etc.),
- Maintenance procedures:
    - Changing Filters,
    - Remove a jam,
    - Lubrication,
    - Safety procedures.

6 (U) Power Requirements

6.1 (U) Electrical

(U) The magnetic degausser will be approved for a power source that is evaluated in testing. Every power source for a magnetic degausser must be individually tested to claim approval.

6.2 (U) On/Off Switch

(U) The magnetic degausser must have On/Off Switch within easy access of the operator.

6.3 (U) Power Indication

(U) The magnetic degausser must have a power indication display that can be clearly seen by the operator.

6.4 (U) Ready Indication

(U) If the magnetic degausser requires a warm up period before operation it must have a ready indication display.

7 (U) Safety and Environmental Requirements

7.1 (U) Emergency Off

(U) The magnetic degausser must have an emergency stop mechanism within easy reach of an operator. The emergency procedure must be documented.

7.2 (U) Operator Protection

(U) The magnetic degausser must protect the operator. The operator must not come into contact with any moving parts, toxic dust, dangerous fields or projectiles during operation.

7.3 (U) Noise

(U) Sound levels for the magnetic degausser must be less than 85 dBA while operation. This level meets both the National Institute for Occupational Operational and Health (NIOSH) and the Occupational Operation and Health Administration (OSHA) standards of less than 85 DBA and less the 90 dBA respectively.

8 (U) Mechanical Requirements

8.1 (U) Fit and Finish

(U) The magnetic degausser should have a tight fit with no gaps between panels, loose panels, faulty doors, loose windows or sharp edges that could cause safety or operational issues.

(U) The magnetic degausser should be a production unit that is complete and all claimed features should be operational.

8.2 (U) Vibration

(U) The effects of vibration can be severe. Unchecked vibration can accelerate rates of wear (i.e. reduce bearing life) and damage equipment. Vibrating machinery can create noise, cause safety problems and lead to degradation in plant working conditions.

(U) The magnetic degausser must not exhibit a vibration measurement of over ? Hz. The measurements will be taken at four random locations around the Solid State Disintegrator Device using a digital vibration meter.

8.3 (U) Heat Generation

(U) A heat signature will be taken using a heat signature camera on each side of the magnetic degausser. The signature should show no high temperature activity (red areas) on the magnetic degausser that could be dangerous to the environment or injure an operator.

8.4 (U) Calibration or Maintenance

(U) Any machine will require calibration and maintenance during its lifetime. If the magnetic degausser requires calibration or maintenance by the operator if must be safe and easy to accomplished. The following are some specifics:

- (U) Unit Jamming must be cleared within 5 minutes.
- (U) Must be able to reset within 10 minute after a thermo shutdown.