

NSA/CSS Requirements for Optical Destruction Devices

1 (U) Introduction

(U) Optical destruction device must pass an evaluation by meeting requirements set by the NSA/CSS for the destruction of classified optical storage devices. The NSA/CSS will primarily evaluate the device's operational ability to reduce any optical storage device so that no classified information can be extracted. Secondly 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 Optical Destruction Devices". 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 optical destruction device as a guide for the NSA/CSS evaluation. In order to be included in the NSA/CSS Evaluated Product List for Optical Destruction Devices a vendor must satisfy all appropriate requirements in this document. The optical destruction device will be evaluated against a random assortment of optical storage devices it claims to destroy.

3 (U) Descriptions

- (U) **EPL:** Evaluated Product List.
- (U) **Evaluator:** The destruction engineer performing the evaluation.
- (U) **Optical Destruction Device:** A machine that will destroy an optical storage device so that no classified information can be extracted.
- (U) **Optical Storage Device:** Optical storage devices store and read data using light, often recording information on what's called an optical disk. The most common types of optical storage devices are drives that read and write CDs, DVDs and Blu-ray discs.

4 (U) Operation Requirements

4.1 (U) Destruction

(U) The optical destruction device must have the ability to sanitize optical storage devices (through grinding, milling, cutting, disintegrating, or knurling) for:

- CDs to a maximum edge size of 5 mm or less,
- DVDs and BDs to a maximum edge size of 2 mm or less.

4.2 (U) Operational Time

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

4.1 (U) Optical Device Types

(U) An optical destruction device may be able to destroy all or some of these optical storage devices:

- (U) CDs
- (U) DVDs
- (U) Blu-ray Disks (BD)

(U) In order for a optical destruction device to be approved it must be evaluated for each optical storage device.

5 (U) Administrative Requirements

5.1 (U) Labels

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

5.3 (U) User/Operator Guide

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

- Accurate description of the optical destruction device,
- List of optical 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 optical destruction device will only be approved for a power source that is evaluated in testing. Every power source for a unit must be individually tested to claim approval.

6.2 (U) On/Off Switch

(U) The optical destruction device must have On/Switch within easy access of the operator.

6.3 (U) Power Indication

(U) The optical destruction device must have a power indication display that can be clearly seen by the operator.

7 (U) Safety and Environmental

7.1 (U) Emergency Off

(U) The optical destruction device must have an emergency stop mechanism within easy reach of an operator. The emergency procedure must be well documented.

7.2 (U) Operator Protection

(U) The optical destruction device must protect the operator. The operator must not come into contact with any moving parts or projectiles during operation of the optical destruction device.

7.3 (U) Reverse

(U) An optical destruction device that has a automatic feeder for optical devices must either automatically or manually allow the optical disk to be reversed and extracted.

7.4 (U) Debris Collection

(U) The internal design of the optical destruction device must deposit the particles to a debris bin.

7.5 (U) Debris Full

(U) The optical destruction device must have a debris full indicator and must automatically shut off. This must be a actual measurement of the level of debris that is the bin and not based on time or other criteria.

7.6 (U) Debris Handling

(U) The optical destruction device must have the ability to easily remove and emptied the debris.

7.7 (U) Noise

(U) Sound levels for the optical destruction device 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

8.1 (U) Fit and Finish

(U) The optical destruction device 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 optical destruction device 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 optical destruction device must not exhibit a vibration measurement of over ? Hz. The measurements will be taken at four random locations around the Optical Destruction 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 optical destruction device. The signature should show no high temperature activity (red areas) on the optical destruction device 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 optical destruction device 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.

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- (U) Filters must be change within 5 minutes without using special tools.
- (U) Must be able to reset within 10 minute after a thermo shutdown.
- (U) Lubricant should be able to be applied, refilled or replaced within 5 minutes.