NSA/CSS Requirements for

Punch Tape Disintegrators

1 (U) Introduction

(U) Punch Tape Disintegrators must pass an evaluation by meeting requirements set by the NSA/CSS for the destruction of punched (key) tape. NSA/CSS will primarily evaluate the device's operational ability to make it very difficult for classified information to be extracted. 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 Punch Tape Disintegrators". The 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 as a guide for the NSA/CSS evaluation. In order to be included in the appropriate NSA/CSS Evaluated Product List a vendor must satisfy all appropriate requirements in this document. The machine will be evaluated against a random assortment of devices it claims to disintegration.

3 (U) Descriptions

- **(U) Evaluator:** The destruction engineer performing the evaluation.
- **(U) Operator:** The person using the punch tape disintegrator to perform the destruction of punch tapes.
- **(U) Punched (key) tape:** Punched tape or perforated paper tape is a form of data storage that consists of a long strip of paper in which holes are punched. Now effectively obsolete, it was widely used during much of the 20th century by governments to store cryptographic keys.
- **(U) Punch (Key) Tape Disintegrator:** Mechanical device that will reduce plastic and paper/plastic laminate punched tape to a small enough size to so that classified data cannot be extracted.

4 (U) Operation Requirements

4.1 (U) Disintegrate

(U) The punch tape disintegrator must reduce plastic and paper/plastic laminate punched (key) tape materials to 2.5 millimeter by 0.5 millimeter edge size, or less.

4.2 (U) Operational Time

(U) The punch tape disintegrator must be able to operate continuously for one hour while destroying at least 250 inches of punch (key) tape. A jam must be cleared within 5 minutes.

5 (U) Administrative Requirements

5.1 (U) Labels

(U) The punch tape disintegrator 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 punch tape disintegrator vendor must specify the types of punch (key) tape it will destroy and the requirements it will satisfy. If it's not claimed it will be not be evaluated and will not be approved to disintegrate. If a requirement is not supported the punch tape disintegrator may not be allowed to go through evaluation.

5.3 (U) User/Operator Guide

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

- Accurate description of the punch tape disintegrator,
- Definition of punch (key) tape it will disintegrate,
- 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 punch tape disintegrator will be approved for a power source that is evaluated in testing. Every power source for a punch tape disintegrator must be individually tested to claim approval.

6.2 (U) On/Off Switch

(U) The punch tape disintegrator must have On/Off Switch within easy access of the operator.

6.3 (U) Power Indication

(U) The punch tape disintegrator 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 punch tape disintegrator 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 punch tape disintegrator must protect the operator. The operator must not come into contact with any moving parts or projectiles during operation.

7.3 (U) Reverse

(U) A punch tape disintegrator that feeds the punch tape into a input chute must either automatically or manually allow the reverse operation.

7.4 (U) Debris Collection

(U) The internal design of the punch tape disintegrator must deposit the majority (95%) of the particles into debris bin.

7.5 (U) Debris Full

(U) The punch tape disintegrator 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 punch tape disintegrator must have the ability to easily removed and empted the debris.

7.7 (U) Noise

(U) Sound levels for the punch tape disintegrator 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 punch tape disintegrator 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 punch tape disintegrator should be a production unit that is complete and all 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 punch tape disintegrator 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 punch tape disintegrator. The signature should show no high temperature activity (red areas) on the punch tape disintegrator 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 punch tape disintegrator 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) 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.