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PROTECTION OF USE CONTROL VULNERABILITIES AND DESIGNS



U.S. DEPARTMENT OF ENERGY
Assistant Secretary for Defense Programs
Office of Weapons Surety

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Protection of Use Control Vulnerabilities and Designs Manual

1. **PURPOSE.** This Manual establishes a general process and provides direction for controlling access and dissemination of Sigma 14 and 15 Weapon Data at the Department of Energy (DOE). It supplements DOE O 452.4, SECURITY AND CONTROL OF NUCLEAR EXPLOSIVES AND NUCLEAR WEAPONS, which establishes DOE requirements and responsibilities to prevent the deliberate unauthorized use of U.S. nuclear explosives and U.S. nuclear weapons.
2. **APPLICABILITY.**
 - a. **General.** This Manual applies to Departmental elements with access to Sigma 14 and Sigma 15 Weapon Data Matter (documents, materials and hardware).
 - b. **Applicability to Contracts.** This Manual applies to contractors with access to Sigma 14 and Sigma 15 Weapon Data Matter and requirements are listed in the Contractor Requirements Document (CRD), Attachment 1. Contractor compliance with the CRD will be required to the extent set forth in a contract.
3. **SUMMARY.** In June 1994, the Deputy Assistant Secretary for Military Application and Stockpile Management (DASMASM) established two new Weapon Data Categories, Sigma 14 and 15, for controlling Sensitive Use Control Information. The DASMASM staff and the Use Control Effectiveness Committee developed procedures for handling information determined to be in these categories. This Manual incorporates and finalizes these procedures and supersedes previous letter instructions.
4. **CONTACTS.** For additional information or technical interpretation of this Manual, contact the Office of Weapons Surety (DP-21) at (301)903-6723.

BY ORDER OF THE SECRETARY OF ENERGY:



THOMAS T. TAMURA
Acting Director of
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CONTENTS

	Page
CHAPTER I - INTRODUCTION	
1. BACKGROUND	I-1
2. SCOPE, PURPOSE, AND JUSTIFICATION	I-1
3. MANUAL ADMINISTRATION AND MANAGEMENT RESPONSIBILITIES	I-1
3.1 Use Control Facility Coordinator	I-1
3.2 Headquarters Use Control Facility Coordinator	I-2
4. DEFINITIONS	I-3
CHAPTER II - OPERATING PROCEDURES	
1. OPERATING PRINCIPLES	II-1
2. SIGMAS 14 AND 15 CONTROL PROCESS	II-1
2.1 Identification of Sensitive Use Control Information	II-2
2.2 Markings, Storage and Accountability	II-2
2.3 Classification Guidelines	II-2
3. PROCEDURES FOR RESTRICTING ACCESS AND LIMITING DISTRIBUTION . . .	II-3
3.1 Within the DOE Nuclear Weapons Complex	II-3
3.2 Outside the Nuclear Weapons Complex	II-3
4. HANDLING AND MARKING PROCEDURES FOR HARDWARE	II-5
5. DELEGATION OF AUTHORITY	II-5
CHAPTER III - ACCOUNTABILITY REQUIREMENTS	
1. ACCOUNTABILITY	III-1
2. ANNUAL INVENTORY	III-1
Attachment 1 - Contractor Requirements Document	

CHAPTER I

INTRODUCTION

1. **BACKGROUND.** A special category of information, previously known as Sensitive Use Control Information, has been redesignated as Sigma 14 or Sigma 15 Weapon Data. Knowledge of use control information is sensitive because it can significantly enhance an adversary's ability to obtain an unauthorized nuclear detonation. Therefore, access to Sigma 14 and 15 Weapon Data must be strictly limited to those who have a verified need-to-know to accomplish their jobs effectively and safely. This fact is recognized by both the Department of Defense (DoD) and the Department of Energy (DOE) and is reflected in the "Joint Agreement: DOE/DoD Procedures for Assessments of Use Control Effectiveness" (January 1981). Copies of the Joint Agreement are available from the Office of Weapons Surety (DP-21).

As with all Weapon Data, the keystone to access control for Sigma 14 and 15 Weapon Data is need-to-know. Only those individuals with the appropriate security clearance, Authorized Sigma Access, and a valid need-to-know will be permitted access to these categories of weapon data. Nuclear weapon vulnerability information will be protected within the most restrictive Sigma category (Sigma 14). Only rarely is Sigma 14 Weapon Data disseminated outside the DOE nuclear weapons complex. Division of Sensitive Use Control Information into the two categories of Sigma 14 and 15 allows the creation of two sets of access criteria and, consequently, more stringent controls for the more sensitive Sigma 14 category.

The requirements contained in this Manual are in addition to the requirements for protecting classified information contained in DOE Order 471.2A, INFORMATION SECURITY PROGRAM and associated Orders and Manuals.

2. **SCOPE, PURPOSE, AND JUSTIFICATION.** This Manual addresses Sigma 14 and Sigma 15 only. It presents DOE direction for procedures to control access to information or material that would significantly enhance an adversary's ability to accomplish deliberate unauthorized use of a nuclear weapon or explosive. The procedures established in this document ensure that only authorized personnel have access to all information necessary to accomplish their assigned tasks effectively and safely.

3. **MANUAL ADMINISTRATION AND MANAGEMENT RESPONSIBILITIES.**

- 3.1 **Use Control Facility Coordinator (UCFC).** The UCFC will be responsible for the following:

- 3.1.1 ensure current Sigma 14 and 15 roster(s) or database(s) exists at the site for all approved facility personnel;

- 3.1.2 maintaining a list of Sigma 14 Weapon Data Matter and providing a summary of this list to the DOE Headquarters UCFC at least annually;
 - 3.1.3 serving as point of contact for issues related to Sigma 14 or 15 Weapon Data handling;
 - 3.1.4 coordinating procedures with knowledgeable Authorized Derivative Classifiers (ADCs), the Use Control Effectiveness Committee (UCEC), and classification authorities to identify, classify and categorize Sigma 14 and 15 Weapon Data consistently;
 - 3.1.5 coordinating facility plans with the appropriate field organizations and the DOE Headquarters UCFC;
 - 3.1.6 ensuring facility compliance with these procedures;
 - 3.1.7 ensuring that personnel authorized Sigma 14 or 15 access have sufficient training and awareness and are knowledgeable of the procedures for protecting such information;
 - 3.1.8 developing a written plan for implementing these procedures; and
 - 3.1.9 reporting within 48 hours to the Headquarters UCFC, any Sigma 14 Matter that cannot be found or have been compromised.
- 3.2 Headquarters Use Control Facility Coordinator. In addition to the responsibilities of a facility coordinator, the DOE Headquarters UCFC will also be responsible for—
- 3.2.1 serving as a program coordinator for the overall implementation of this manual;
 - 3.2.2 serving as point of contact for interactions involving Sigma 14 and 15 information with agencies outside the DOE Nuclear Weapons Complex;
 - 3.2.3 developing policy and procedures in coordination with appropriate organizations to identify, classify, categorize and protect Sigma 14 and 15 Weapon Data consistently; and
 - 3.2.4 keeping this manual current.

4. DEFINITIONS.

- 4.1 Authorized Sigma Access. A formal authorization by a DOE element or contractor organization with access to Sigma 14 or 15, that a specific individual is authorized access to Sigma 14 or 15.
- 4.2 Documents. Defined in the Safeguards and Security Glossary of Terms and includes special documents as defined in DOE M 471.2-1B (e.g., printed materials, diskettes, tapes, etc.).
- 4.3 Matter. Defined in the Safeguards and Security Glossary of Terms and includes documents, materials and hardware.
- 4.4 Sensitive Information. Information that significantly enhances an adversary's ability to obtain an unauthorized nuclear detonation from a nuclear weapon or device.
- 4.5 Sigma 14. The category of sensitive information concerning the vulnerability of nuclear weapons to deliberate unauthorized nuclear detonation.
- 4.6 Sigma 15. The category of sensitive information concerning the design and function of nuclear weapons use control systems, features, and their components. This includes use control information for passive and active systems.
- 4.7 Need-to-know. A determination by a person having responsibility for classified information that a proposed recipient's access to such classified information is necessary in the performance of official or contractual duties of employment.
- 4.8 Nuclear Weapons Complex. The DOE activities that design, manufacture, or test nuclear weapons and/or explosive devices; retire nuclear weapon components; or administer the preceding programs.

CHAPTER II

OPERATING PROCEDURES

1. OPERATING PRINCIPLES. The following principles apply to the protection of Sigma 14 and 15 Weapon Data Matter.
 - 1.1 Access to and distribution of Sigma 14 and 15 Weapon Data Matter must be restricted to those persons with the appropriate Authorized Sigma Access, need-to-know and DOE Q clearance or its equivalent.
 - 1.2 The number of documents and items of hardware containing Sigma 14 should be kept to the minimum necessary for operational requirements.
 - 1.3 All Sigma 14 and 15 Weapon Data Matter is to be classified at the Secret or Top Secret RD or FRD level per TCG-UC-2 or its successor.
 - 1.3.1 Confidential FRD or RD documents previously marked as Sensitive Use Control Information should be reviewed, classification upgraded if appropriate, and properly marked as they are accessed during normal use.
 - 1.3.2 Older documents not covered by the preceding sentences that contain Sigma 14 or 15 data must be correctly marked and upgraded if necessary as they are accessed during normal use.
 - 1.3.3 Where appropriate, this paragraph applies to hardware also.
 - 1.4 Technical discussion and distribution of Sigma 14 or 15 Weapon Data Matter within the DOE complex will be restricted as indicated in Paragraph 1.1 and dissemination of Weapon Data Matter outside DOE must be limited to that absolutely essential to the task(s) addressed as approved by the Headquarters UCFC.
 - 1.5 Sigma 14 Weapon Data Matter must be positioned only in those facilities where effective protective measures (as defined in this Manual) are implemented.
2. SIGMAS 14 AND 15 CONTROL PROCESS.

- 2.1 IDENTIFICATION OF SENSITIVE USE CONTROL INFORMATION. Normally, the design laboratory(s) responsible for the use control or weapon system is responsible for identifying the specific design information, knowledge of which would significantly enhance an adversary's ability to achieve a deliberate unauthorized nuclear detonation. This action is taken in conjunction with the site's UCFC or designee. If another organization creates this information, then it has this responsibility as originating agency. Documents containing information so identified are categorized as Sigma 14 or 15 by the originator or originating agency in conjunction with the site's UCFC.
- 2.2 Markings, Storage and Accountability. Documents containing Sigma 14 information are to be identified, classification upgraded if appropriate, properly marked, and entered into formal accountability. Documents containing Sigma 14 will carry the following additional handling instruction:

This document may not be reproduced or disseminated beyond original distribution without approval of the originator or originating agency Use Control Facility Coordinator.

These markings are in addition to those required by DOE O 471.2A, INFORMATION SECURITY PROGRAM, its associated implementing manual, and contractor requirements document.

Documents containing Sigma 14 will be physically separated from other documents and placed in approved security containers in a Limited Area or higher. Only personnel authorized Sigma 14 access may have access to security containers (and their combinations) which have Sigma 14 content. The person with control of this material will determine that the intended recipient is approved for Sigma 14 and has a current need-to-know prior to allowing access. Sigma 14 documents will not be stored in an "open storage" room or vault.

Sigma 15 has the same restrictions as Sigma 14 except that Sigma 15 documents are not accountable and can be commingled with other classified documents. Specifically, only personnel authorized Sigma 15 access may have access to security containers (and their combinations) which have Sigma 15 content. Personnel authorized only for Sigma 15 access must obtain additional Sigma 14 authorization as previously described, including a valid need-to-know, to be granted access to Sigma 14 containers and information.

- 2.3 Classification Guidelines. The Department will use general classification guidelines and definitions related to use control and specific weapon classification guides. (See the Joint DOE/DoD Nuclear Weapon Classification Policy Guide, CG-W-5, Chapter 5-B; the Topical Classification Guide for Use Control-2 and the Use Control Effectiveness Committee (UCEC) Sigma 14 and 15 Categorization Guide.)

3. PROCEDURES FOR RESTRICTING ACCESS AND LIMITING DISTRIBUTION.

Personnel authorized to have access to Sigma 14 or 15 Weapon Data Matter must possess a DOE Q clearance or, in agencies outside the DOE, its equivalent based on a Single Scope Background Investigation (SSBI).

All DOE organizations handling Sigma 14 information must use a full accountability system to track the Sigma 14 documents and hardware for which they are responsible.

- 3.1 Within the DOE Nuclear Weapons Complex. Each DOE site or facility that handles Sigma 14 or 15 Sensitive Use Control Information will appoint a UCFC responsible for ensuring facility compliance with the procedures in this Manual. The UCFC must have sufficient stature in the organization to ensure that effective methods for implementing these procedures have been established and are in use at the facility.

The name of the designated UCFC will be provided to the DOE Headquarters UCFC. Headquarters will maintain a current listing of the facility coordinators and periodically distribute a consolidated listing to the site coordinators.

UCFCs will maintain lists and/or databases of all site personnel authorized either Sigma 14 or 15 access. Sigma 14 or 15 access for all site personnel will be approved by the UCFC. When facility personnel going to other locations require either Sigma 14 or Sigma 15 access, the UCFCs of the respective sites will coordinate access approvals. The DOE Weapon Data Access Control System may be used to record an individual's access to this information.

Key Departmental officials possessing unlimited access badges must comply with the requirements in this Manual. Without prior approval, their access is limited to Sigma 1 through 13.

- 3.2 Outside the Nuclear Weapons Complex. No individual from outside the nuclear weapons complex will be given Sigma 14 or 15 information without a prior approved DOE Headquarters authorization. Such individuals must request access to Sigma 14 or 15 Weapon Data using DOE Form 5631.20; such access must be approved by the DOE Headquarters Associate Deputy Assistant Secretary for Technical and Environmental Support (DP-45). As part of the approval process, DP-45 obtains concurrence from the Headquarters UCFC. Headquarters will maintain a current list of non-DOE personnel with access to Sigma 14 and Sigma 15.

For requests concerning DoD personnel, prior approval through the DoD's Assistant to the Secretary of Defense [Nuclear, Chemical, & Biological Defense Programs (OATSD(NCB-DP))] or its successor organization is also required. Such approval will be provided for specific purposes or projects and will be contingent upon confirmation that the personnel have a "Q" access authorization (or comparable SSBI) and a validated need-to-know.

The following additional provisions apply.

- Continuing or blanket access to Sigma 14 or 15 is allowed only in special situations and as justified in writing to the DOE Headquarters UCFC. The sponsoring organization is required to inform the site UCFC as access needs change.
- Access to Sigma 14 information by personnel outside DOE will be on a case-by-case basis. It is understood that some agencies and/or offices may require special procedures. These will be handled by the Office of Weapons Surety (DP-21) in concert with the concerned agencies and/or offices.
- Documents containing Sigma 14 Weapon Data will not be transferred to agencies outside the DOE without explicit approval of the Deputy Assistant Secretary for Military Application and Stockpile Management (DASMASM). The special circumstances and time period for such transfers will be established by the DASMASM. Documents containing Sigma 15 Weapon Data may be transferred to agencies outside the DOE by currently established procedures. These procedures include, but are not limited to: obtaining approval via the DOE's Weapon Data Access Control System (DP-45) and ensuring use of authorized channels and/or facilities by querying the Safeguards and Security Information Management System (NN-50). To ensure compliance with the latest procedure, contact the Office of Weapons Surety (DP-21) at (301)903-6723.
- Dissemination of Sigma 14 or 15 Weapon Data outside the DOE Nuclear Weapons Complex requires that the recipient maintains accountability, storage, and handling procedures equivalent to the requirements set forth in this Manual. These requirements preclude further dissemination of Weapon Data without approval from the DOE Headquarters program office and restricts Weapon Data access to those individuals authorized by the DOE Headquarters UCFC.
- Sigma 14 or 15 documents provided to non-DOE organizations will have a unique and distinctive cover sheet specifying Sigma 14 or 15 access required before viewing contents. DOE Headquarters will develop the standard design for the cover sheet.

Certain positions within DoD may be designated for continuing access to Sigma 14 or 15 upon agreement between the OATSD(NCB-DP) and DASMASM. The transmissibility matrix for verbal and written information access is contained in the memorandum, "Department of Defense/Department of Energy (DoD/DOE) Procedures for Assessment of Use Control Effectiveness," January 1981. The transmissibility matrix will be upgraded by the Headquarters UCFC as needed.

4. HANDLING AND MARKING PROCEDURES FOR HARDWARE. Little if any hardware will embody Sigma 14 information. All hardware or hardware configurations identified as containing Sigma 14 will be placed into accountability and subjected to the same access restrictions as those described in the preceding paragraphs. Temporary hardware configurations identified as containing Sigma 14 (e.g., used during black-hat or field exercises) must be access-restricted and accountability may be waived by the UCFC if satisfied with the compensatory security measures in place. Such temporary Sigma 14 hardware configurations must be dismantled as soon as possible after the activity is ended.

The Albuquerque Operations Office, in conjunction with the design laboratories and production agencies, will establish site instructions for marking and handling of hardware designated as Sigma 14 or Sigma 15. These instructions may be tailored for special situations and programs and must consider the cost of implementation.

Hardware should be designed to prevent DoD personnel from seeing Sigma 15 Weapon Data during normal handling and maintenance operations. Interface simulators or trainer hardware permanently transferred to the DoD will not contain Sigma 14 information and can only contain that Sigma 15 Weapon Data that is absolutely essential to support DoD operations. Before hardware containing Sigma 15 Weapon Data is transferred to the DoD (even on a temporary basis), the shipping organization and associated UCFC must ensure that proper access controls are in force at the receiving DoD organization.

The Headquarters must approve the transfer of all Sigma 14 hardware outside of the DOE. Except for nuclear weapons, associated trainers and Joint Test Units, the Headquarters must approve the transfer of all Sigma 15 hardware outside of the DOE.

5. DELEGATION OF AUTHORITY. The UCFC may delegate to others within the site Sigma 15 authorization responsibilities. However, Sigma 14 access authorization responsibility cannot be delegated but the UCFC can designate an alternate if required. In addition, the DOE Headquarters UCFC can serve as a backup point of contact for Sigma 14 actions at other sites when needed.

CHAPTER III

ACCOUNTABILITY REQUIREMENTS

1. ACCOUNTABILITY. Each DOE organization with custody of Sigma 14 Weapon Data Matter will maintain a formal accountability system for that material. This system will comply with the requirements of DOE O 471.2A, INFORMATION SECURITY PROGRAM, and its associated implementing manual and contractor requirements document. The system will maintain records with signatures for accountability. Records of destruction and receipts of transfer to other organizations will be maintained per General Records Schedule 18.
2. ANNUAL INVENTORY. An annual inventory of Sigma 14 Weapon Data Matter will be performed to support scheduled reporting requirements by the DOE. Reports are required by the end of each calendar year. The Site Use Control Facility Coordinator will oversee the inventory and will provide an annual summary to DOE Headquarters for each site holding Sigma 14 information. The report to Headquarters will consist of the following:
 - 2.1 name and location of the facility;
 - 2.2 number of Sigma 14 Weapon Data Matter at the facility;
 - 2.3 number of Sigma 14 Weapon Data Matter entered into accountability during the reporting period (within the last year); and
 - 2.4 number of Sigma 14 Weapon Data Matter destroyed during the reporting period (within the last year).

CONTRACTOR REQUIREMENTS DOCUMENT

PROTECTION OF USE CONTROL VULNERABILITIES AND DESIGNS

This contractor requirements document is issued to aid in specifying requirements applicable to each contractor site where employees have access to Sigma 14 and/or Sigma 15 Weapon Data Matter. These requirements shall flow down to all subcontractors with access to this information.

1. The contractor shall appoint a Use Control Facility Coordinator (UCFC) and provide his or her name to the DOE Headquarters UCFC. The UCFC must have sufficient stature in the organization to ensure that effective methods for implementing these procedures have been established and are in use at the contractor site. The UCFC will:

- 1.1 ensure current Sigma 14 and 15 roster(s) or database(s) exists at the site for all approved facility personnel;
- 1.2 maintain a list of Sigma 14 Weapon Data Matter and provide a summary of this list to the DOE Headquarters UCFC at least annually;
- 1.3 serve as point of contact for issues related to Sigma 14 or 15 Weapon Data handling;
- 1.4 coordinate procedures with knowledgeable Authorized Derivative Classifiers (ADCs), the Use Control Effectiveness Committee (UCEC), and classification authorities to identify, classify and categorize Sigma 14 and 15 Weapon Data consistently;
- 1.5 coordinate facility plans with the appropriate field organizations and the DOE Headquarters UCFC;
- 1.6 ensure facility compliance with these procedures;
- 1.7 ensure that personnel authorized Sigma 14 or 15 access have sufficient training and awareness and are knowledgeable of the procedures for protecting such information;
- 1.8 develop a written plan for implementing these procedures; and
- 1.9 report within 48 hours to the Headquarters UCFC, any Sigma 14 Matter that cannot be found or have been compromised.

2. Ensure that the following operating principles are complied with.
 - 2.1 Access to and distribution of Sigma 14 and 15 Weapon Data Matter must be restricted to those persons with both the appropriate Authorized Sigma Access, need-to-know and a DOE Q clearance or its equivalent (Single Scope Background Investigation).
 - 2.2 The number of documents and items of hardware containing Sigma 14 should be kept to the minimum necessary for operational requirements.
 - 2.3 All Sigma 14 and 15 Weapon Data Matter is to be classified at the Secret or Top Secret RD or FRD level per TCG-UC-2 or its successor.
 - 2.3.1 Confidential FRD or RD documents previously marked as Sensitive Use Control Information should be reviewed, classification upgraded if appropriate, and properly marked as they are accessed during normal use.
 - 2.3.2 Older documents not covered by the preceding sentences that contain Sigma 14 or 15 data must be correctly marked and upgraded if necessary as they are accessed during normal use.
 - 2.3.3 Where appropriate, this paragraph applies to hardware also.
 - 2.4 Technical discussion and distribution of Sigma 14 or 15 Weapon Data Matter within the DOE complex will be restricted as indicated in Paragraph 2.1 and dissemination of Weapon Data Matter outside DOE must be limited to that absolutely essential to the task(s) addressed as approved by the Deputy Assistant Secretary for Military Application and Stockpile Management (DASMASM).
 - 2.5 Sigma 14 Weapon Data Matter must be positioned only in those facilities where effective protective measures (as defined in this Manual) are implemented.
- 3.0 Documents containing Sigma 14 information are to be identified, classification upgraded if appropriate, properly marked, and entered into formal accountability. Documents containing Sigma 14 will carry the following additional handling instruction:

This document may not be reproduced or disseminated beyond original distribution without approval of the originator or originating agency Use Control Facility Coordinator.

These markings are in addition to those required by DOE O 471.2A, INFORMATION SECURITY PROGRAM, its associated implementing manual, and contractor requirements document. The accountability system will maintain records with original (or original fax) signatures for accountability. Records of destruction and receipts of transfer to other organizations will be maintained per General Records Schedule 18.

Documents containing Sigma 14 will be physically separated from other documents and placed in approved security containers in a Limited Area or higher. Only personnel authorized Sigma 14 access may have access to security containers (and their combinations) which have Sigma 14 content. The person with control of this material will determine that the intended recipient is approved for Sigma 14 and has a current need-to-know prior to allowing access. Sigma 14 documents will not be stored in an "open storage" room or vault.

Sigma 15 has the same restrictions as Sigma 14 except that Sigma 15 documents are not accountable and can be commingled with other classified documents. Specifically, only personnel authorized Sigma 15 access may have access to security containers (and their combinations) which have Sigma 15 content. Personnel authorized only for Sigma 15 access must obtain additional Sigma 14 authorization as previously described, including a valid need-to-know, to be granted access to Sigma 14 containers and information.

- 4.0 Use general classification guidelines and definitions related to use control and specific weapon classification guides. (See the Joint DOE/DoD Nuclear Weapon Classification Policy Guide, CG-W-5, Chapter 5-B; the Topical Classification Guide for Use Control-2 and the Use Control Effectiveness Committee Sigma 14 and 15 Categorization Guide.)
- 5.0 Maintain lists and/or databases of all site personnel authorized either Sigma 14 or 15 access. Sigma 14 or 15 access for all site personnel will be approved by the UCFC. When facility personnel going to other locations require either Sigma 14 or Sigma 15 access, the UCFCs of the respective sites will coordinate access approvals. The DOE Weapon Data Access Control System may be used to record an individual's access to this information.
- 6.0 Deny Sigma 14 and 15 access to key Departmental officials possessing unlimited access badges unless the requirements in this Manual are met. Without prior approval, their access is limited to Sigma 1 through 13.
- 7.0 Deny Sigma 14 and 15 access to individuals from outside the nuclear weapons complex unless prior approved was given by DOE Headquarters. Such individuals must request access to Sigma 14 or 15 Weapon Data using DOE Form 5631.20; such access must be approved by the DOE Headquarters Associate Deputy Assistant Secretary for Technical and Environmental Support (DP-45). As part of the approval process, DP-45 obtains concurrence from the Headquarters UCFC.

7.1 For requests concerning DoD personnel, prior approval through the DoD's Assistant to the Secretary of Defense [Nuclear, Chemical, & Biological Defense Programs (OATSD(NCB-DP))] or its successor organization is required. Such approval will be provided for specific purposes or projects and will be contingent upon confirmation that the personnel have a "Q" access authorization (or comparable SSBI) and a validated need-to-know. The following additional provisions apply.

7.1.1 Continuing or blanket access to Sigma 14 or 15 is allowed only in special situations and as justified in writing to the DOE Headquarters UCFC. The sponsoring organization is required to inform the site UCFC as access needs change.

7.1.2 Documents containing Sigma 14 Weapon Data will not be transferred to agencies outside the DOE without explicit approval of the DASMASM. The special circumstances and time period for such transfers will be established by the DASMASM.

Documents containing Sigma 15 Weapon Data may be transferred to agencies outside the DOE by currently established procedures. These procedures include, but are not limited to: obtaining approval via the DOE's Weapon Data Access Control System (DP-45) and ensuring use of authorized channels and/or facilities by querying the Safeguards and Security Information Management System (NN-50). To ensure compliance with the latest procedure, contact the Office of Weapons Surety (DP-21).

7.1.3 Dissemination of Sigma 14 or 15 Weapon Data outside the DOE Nuclear Weapons Complex requires that the recipient maintains accountability, storage, and handling procedures equivalent to the requirements set forth in this Manual. These requirements preclude further dissemination of Weapon Data without approval from the DOE Headquarters program office.

7.2 Certain positions within DoD may be designated for continuing access to Sigma 14 or 15 upon agreement between the OATSD(NCB-DP) and DASMASM. The transmissibility matrix for verbal and written information access is contained in the memorandum, "Department of Defense/Department of Energy (DoD/DOE) Procedures for Assessment of Use Control Effectiveness," January 1981. The transmissibility matrix will be upgraded by the Headquarters UCFC as needed.

8.0 Identify all Sigma 14 hardware, place into accountability and subject to the same access restrictions as those described in the preceding paragraphs. Temporary hardware configurations identified as containing Sigma 14 (e.g., used during black-hat or field exercises) must be access-restricted and accountability may be waived by the UCFC if satisfied with the compensatory security measures in place. Such temporary configurations must be dismantled as soon as possible after the activity is ended.

- 8.1 Work with the Albuquerque Operations Office to establish site instructions for marking and handling of hardware designated as Sigma 14 or Sigma 15. These instructions may be tailored for special situations and programs and must consider the cost of implementation.
 - 8.2 Design hardware to prevent DoD personnel from seeing Sigma 15 Weapon Data during normal handling and maintenance operations. Interface simulators or trainer hardware permanently transferred to the DoD will not contain Sigma 14 information and can only contain that Sigma 15 Weapon Data that is absolutely essential to support DoD operations. Before hardware containing Sigma 15 Weapon Data is transferred to the DoD (even on a temporary basis), the shipping organization and associated UCFC must ensure that proper accountability and access controls are in force at the receiving DoD organization.
 - 8.3 The Headquarters must approve the transfer of all Sigma 14 hardware outside of the DOE. Except for nuclear weapons, associated trainers and Joint Test Units, the Headquarters must approve the transfer of all Sigma 15 hardware outside of the DOE.
- 9.0 The UCFC may delegate to others within the site Sigma 15 authorization responsibilities. However, Sigma 14 access authorization responsibility cannot be delegated but the UCFC can designate an alternate if required. In addition, the DOE Headquarters UCFC can serve as a backup point of contact for Sigma 14 actions at contractor sites when needed.
- 10.0 Perform an annual inventory of Sigma 14 Weapon Data Matter to support scheduled reporting requirements by the DOE. Reports are required by the end of each calendar year. The Site UCFC will oversee the inventory and will provide an annual summary to DOE Headquarters for each site holding Sigma 14 information. The report to Headquarters will consist of the following:
- 10.1 Name and location of the facility;
 - 10.2 Number of Sigma 14 Weapon Data Matter at the facility;
 - 10.3 Number of Sigma 14 Weapon Data Matter entered into accountability during the reporting period (within the last year) and
 - 10.4 Number of Sigma 14 Weapon Data Matter destroyed during the reporting period (within the last year).