# Cyber Security Control Sets for Fuel Cycle Facility Rulemaking

#### Notes:

- (1) Do not use this table without consulting the regulatory guide for specific guidance.
- (2) These controls reference controls from NIST SP 800-53, Revision 4.
- (3) Highlighted "S" entries in Set I denote controls that apply only to security systems at Category I facilities
- (4) Set IV column is only added to control families where Set IV controls are required.

#### **ACCESS CONTROL**

CNTL NO.	CONTROL NAME	C	ONTROL SETS			
	Control Enhancement Name	SET IV	SET	SET	SET	
AC-1	Access Control Policy and Procedures	х	х	х	х	
AC-2	Account Management	Х	Х	Х	Х	
AC-2(1)	ACCOUNT MANAGEMENT   AUTOMATED SYSTEM ACCOUNT MANAGEMENT			Х	Х	
AC-2(2)	ACCOUNT MANAGEMENT   REMOVAL OF TEMPORARY / EMERGENCY ACCOUNTS			Х	Х	
AC-2(3)	ACCOUNT MANAGEMENT   DISABLE INACTIVE ACCOUNTS			Х	Х	
AC-2(4)	ACCOUNT MANAGEMENT   AUTOMATED AUDIT ACTIONS			Х	Х	
AC-2(5)	ACCOUNT MANAGEMENT   INACTIVITY LOGOUT				Х	
AC-2(6)	ACCOUNT MANAGEMENT   DYNAMIC PRIVILEGE MANAGEMENT					
AC-2(7)	ACCOUNT MANAGEMENT   ROLE-BASED SCHEMES					
AC-2(8)	ACCOUNT MANAGEMENT   DYNAMIC ACCOUNT CREATION					
AC-2(9)	ACCOUNT MANAGEMENT   RESTRICTIONS ON USE OF SHARED / GROUP ACCOUNTS				S	
AC-2(10)	ACCOUNT MANAGEMENT   SHARED / GROUP ACCOUNT CREDENTIAL TERMINATION				S	
AC-2(11)	ACCOUNT MANAGEMENT   USAGE CONDITIONS				Х	
AC-2(12)	ACCOUNT MANAGEMENT   ACCOUNT MONITORING / ATYPICAL USAGE				Х	
AC-2(13)	ACCOUNT MANAGEMENT   DISABLE ACCOUNTS FOR HIGH-RISK INDIVIDUALS				Х	
AC-3	Access Enforcement	Х	Х	Х	Х	
AC-3(2)	ACCESS ENFORCEMENT   DUAL AUTHORIZATION				S	
AC-3(3)	ACCESS ENFORCEMENT   MANDATORY ACCESS CONTROL					
AC-3(4)	ACCESS ENFORCEMENT   DISCRETIONARY ACCESS CONTROL					
AC-3(5)	ACCESS ENFORCEMENT   SECURITY-RELEVANT INFORMATION					
AC-3(7)	ACCESS ENFORCEMENT   ROLE-BASED ACCESS CONTROL					
AC-3(8)	ACCESS ENFORCEMENT   REVOCATION OF ACCESS AUTHORIZATIONS					
AC-3(9)	ACCESS ENFORCEMENT   CONTROLLED RELEASE					
AC-3(10)	ACCESS ENFORCEMENT   AUDITED OVERRIDE OF ACCESS CONTROL MECHANISMS					
AC-4	Information Flow Enforcement			Х	Х	
AC-4(1)	INFORMATION FLOW ENFORCEMENT   OBJECT SECURITY ATTRIBUTES					
AC-4(2)	INFORMATION FLOW ENFORCEMENT   PROCESSING DOMAINS					
AC-4(3)	INFORMATION FLOW ENFORCEMENT   DYNAMIC INFORMATION FLOW CONTROL					
AC-4(4)	INFORMATION FLOW ENFORCEMENT   CONTENT CHECK ENCRYPTED INFORMATION				S	
AC-4(5)	INFORMATION FLOW ENFORCEMENT   EMBEDDED DATA TYPES					
AC-4(6)	INFORMATION FLOW ENFORCEMENT   METADATA					
AC-4(7)	INFORMATION FLOW ENFORCEMENT   ONE-WAY FLOW MECHANISMS					
AC-4(8)	INFORMATION FLOW ENFORCEMENT   SECURITY POLICY FILTERS					
AC-4(9)	INFORMATION FLOW ENFORCEMENT   HUMAN REVIEWS					
AC-4(10)	INFORMATION FLOW ENFORCEMENT   ENABLE / DISABLE SECURITY POLICY FILTERS					

	Control Enhancement Name	SET	0		CONTROL SETS				
	Control Limitation Name	IV	SET III	SET II	SET				
AC-4(11)	INFORMATION FLOW ENFORCEMENT   CONFIGURATION OF SECURITY POLICY FILTERS								
AC-4(12)	INFORMATION FLOW ENFORCEMENT   DATA TYPE IDENTIFIERS								
AC-4(13)	INFORMATION FLOW ENFORCEMENT   DECOMPOSITION INTO POLICY-RELEVANT SUBCOMPONENTS								
AC-4(14)	INFORMATION FLOW ENFORCEMENT   SECURITY POLICY FILTER CONSTRAINTS								
AC-4(15)	INFORMATION FLOW ENFORCEMENT   DETECTION OF UNSANCTIONED INFORMATION								
AC-4(17)	INFORMATION FLOW ENFORCEMENT   DOMAIN AUTHENTICATION								
AC-4(18)	INFORMATION FLOW ENFORCEMENT   SECURITY ATTRIBUTE BINDING								
AC-4(19)	INFORMATION FLOW ENFORCEMENT   VALIDATION OF METADATA								
AC-4(20)	INFORMATION FLOW ENFORCEMENT   APPROVED SOLUTIONS								
AC-4(21)	INFORMATION FLOW ENFORCEMENT   PHYSICAL / LOGICAL SEPARATION OF INFORMATION FLOWS				S				
AC-4(22)	INFORMATION FLOW ENFORCEMENT   ACCESS ONLY								
AC-5	Separation of Duties			Х	Х				
AC-6	Least Privilege			Х	Х				
AC-6(1)	LEAST PRIVILEGE   AUTHORIZE ACCESS TO SECURITY FUNCTIONS			Х	Х				
AC-6(2)	LEAST PRIVILEGE   NON-PRIVILEGED ACCESS FOR NONSECURITY FUNCTIONS			Х	Х				
AC-6(3)	LEAST PRIVILEGE   NETWORK ACCESS TO PRIVILEGED COMMANDS				Х				
AC-6(4)	LEAST PRIVILEGE   SEPARATE PROCESSING DOMAINS								
AC-6(5)	LEAST PRIVILEGE   PRIVILEGED ACCOUNTS			Х	Х				
AC-6(6)	LEAST PRIVILEGE   PRIVILEGED ACCESS BY NON-ORGANIZATIONAL USERS								
AC-6(7)	LEAST PRIVILEGE   REVIEW OF USER PRIVILEGES								
AC-6(8)	LEAST PRIVILEGE   PRIVILEGE LEVELS FOR CODE EXECUTION								
AC-6(9)	LEAST PRIVILEGE   AUDITING USE OF PRIVILEGED FUNCTIONS			Х	Х				
AC-6(10)	LEAST PRIVILEGE   PROHIBIT NON-PRIVILEGED USERS FROM EXECUTING PRIVILEGED FUNCTIONS			Х	Х				
AC-7	Unsuccessful Logon Attempts		Х	Х	Х				
AC-7(2)	UNSUCCESSFUL LOGON ATTEMPTS   PURGE / WIPE MOBILE DEVICE								
AC-8	System Use Notification	Х	Х	Х	Х				
AC-9	Previous Logon (Access) Notification								
AC-9(1)	PREVIOUS LOGON NOTIFICATION   UNSUCCESSFUL LOGONS				S				
AC-9(2)	PREVIOUS LOGON NOTIFICATION   SUCCESSFUL / UNSUCCESSFUL LOGONS				S				
AC-9(3)	PREVIOUS LOGON NOTIFICATION   NOTIFICATION OF ACCOUNT CHANGES				s				
AC-9(4)	PREVIOUS LOGON NOTIFICATION   ADDITIONAL LOGON INFORMATION				_				
	Concurrent Session Control				х				
AC-11	Session Lock			Х	Х				
AC-11(1)	SESSION LOCK   PATTERN-HIDING DISPLAYS			Х	Х				
AC-12	Session Termination			Х	Х				
AC-12(1)	SESSION TERMINATION   USER-INITIATED LOGOUTS / MESSAGE DISPLAYS								
AC-14	Permitted Actions without Identification or Authentication		Х	Х	Х				
AC-16	Security Attributes								
AC-16(1)	SECURITY ATTRIBUTES   DYNAMIC ATTRIBUTE ASSOCIATION								
AC-16(2)	SECURITY ATTRIBUTES   ATTRIBUTE VALUE CHANGES BY AUTHORIZED INDIVIDUALS								
AC-16(3)	SECURITY ATTRIBUTES   MAINTENANCE OF ATTRIBUTE ASSOCIATIONS BY INFORMATION SYSTEM								
AC-16(4)	SECURITY ATTRIBUTES   ASSOCIATION OF ATTRIBUTES BY AUTHORIZED INDIVIDUALS				S				
AC-16(5)	SECURITY ATTRIBUTES   ATTRIBUTE DISPLAYS FOR OUTPUT DEVICES								
AC-16(6)	SECURITY ATTRIBUTES   MAINTENANCE OF ATTRIBUTE ASSOCIATION BY ORGANIZATION								
AC-16(7)	SECURITY ATTRIBUTES L CONSISTENT ATTRIBUTE INTERPRETATION								
AC-16(7) AC-16(8)	SECURITY ATTRIBUTES   CONSISTENT ATTRIBUTE INTERPRETATION  SECURITY ATTRIBUTES   ASSOCIATION TECHNIQUES / TECHNOLOGIES								

CNTL NO.	CONTROL NAME	C	ONTRO	DL SE	ΓS
	Control Enhancement Name	SET IV	SET III	SET II	SET I
AC-16(10)	SECURITY ATTRIBUTES   ATTRIBUTE CONFIGURATION BY AUTHORIZED INDIVIDUALS				
AC-17	Remote Access		Х	Х	Х
AC-17(1)	REMOTE ACCESS   AUTOMATED MONITORING / CONTROL			Х	Х
AC-17(2)	REMOTE ACCESS   PROTECTION OF CONFIDENTIALITY / INTEGRITY USING ENCRYPTION			Х	Х
AC-17(3)	REMOTE ACCESS   MANAGED ACCESS CONTROL POINTS			Х	Х
AC-17(4)	REMOTE ACCESS   PRIVILEGED COMMANDS / ACCESS			Х	Х
AC-18	Wireless Access		Х	Х	Х
AC-18(1)	WIRELESS ACCESS   AUTHENTICATION AND ENCRYPTION			Х	Х
AC-18(3)	WIRELESS ACCESS   DISABLE WIRELESS NETWORKING				
AC-18(4)	WIRELESS ACCESS   RESTRICT CONFIGURATIONS BY USERS				Х
AC-18(5)	WIRELESS ACCESS   ANTENNAS / TRANSMISSION POWER LEVELS				Х
AC-19	Access Control for Mobile Devices		Х	Х	Х
AC-19(4)	ACCESS CONTROL FOR MOBILE DEVICES   RESTRICTIONS FOR CLASSIFIED INFORMATION				
AC-19(5)	ACCESS CONTROL FOR MOBILE DEVICES   FULL DEVICE / CONTAINER-BASED ENCRYPTION			Х	Х
AC-20	Use of External Information Systems		Х	Х	Х
AC-20(1)	USE OF EXTERNAL INFORMATION SYSTEMS   LIMITS ON AUTHORIZED USE			Х	Х
AC-20(2)	USE OF EXTERNAL INFORMATION SYSTEMS   PORTABLE STORAGE DEVICES			Х	Х
AC-20(3)	USE OF EXTERNAL INFORMATION SYSTEMS   NON-ORGANIZATIONALLY OWNED SYSTEMS / COMPONENTS / DEVICES				S
AC-20(4)	USE OF EXTERNAL INFORMATION SYSTEMS   NETWORK ACCESSIBLE STORAGE DEVICES				S
AC-21	Information Sharing			Х	Х
AC-21(1)	INFORMATION SHARING   AUTOMATED DECISION SUPPORT				
AC-21(2)	INFORMATION SHARING   INFORMATION SEARCH AND RETRIEVAL				
AC-22	Publicly Accessible Content		Х	Х	Х
AC-23	Data Mining Protection				
AC-24	Access Control Decisions				
AC-24(1)	ACCESS CONTROL DECISIONS   TRANSMIT ACCESS AUTHORIZATION INFORMATION				
AC-24(2)	ACCESS CONTROL DECISIONS   NO USER OR PROCESS IDENTITY				
AC-25	Reference Monitor				

# AWARENESS AND TRAINING CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET IV	SET III	SET II	SET I	
AT-1	Security Awareness and Training Policy and Procedures	Х	Х	Х	Х	
AT-2	Security Awareness Training	Х	Х	Х	Х	
AT-2(1)	SECURITY AWARENESS   PRACTICAL EXERCISES				S	
AT-2(2)	SECURITY AWARENESS   INSIDER THREAT				Х	
AT-3	Role-Based Security Training		Х	Х	Х	
AT-3(1)	ROLE-BASED SECURITY TRAINING   ENVIRONMENTAL CONTROLS					
AT-3(2)	ROLE-BASED SECURITY TRAINING   PHYSICAL SECURITY CONTROLS					
AT-3(3)	ROLE-BASED SECURITY TRAINING   PRACTICAL EXERCISES				S	
AT-3(4)	ROLE-BASED SECURITY TRAINING   SUSPICIOUS COMMUNICATIONS AND ANOMALOUS SYSTEM BEHAVIOR				S	
AT-4	Security Training Records	Х	Х	Х	Х	

# **AUDIT AND ACCOUNTABILITY CONTROLS**

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	ONTRO	OL SE	TS
		SET	SET	SET	SET
AU-1	Audit and Accountability Policy and Procedures	х	х	Х	Х
AU-2	Audit Events		Х	Х	Х
AU-2(3)	AUDIT EVENTS   REVIEWS AND UPDATES			Х	Х
AU-3	Content of Audit Records		Х	Х	Х
AU-3(1)	CONTENT OF AUDIT RECORDS   ADDITIONAL AUDIT INFORMATION			Х	Х
AU-3(2)	CONTENT OF AUDIT RECORDS   CENTRALIZED MANAGEMENT OF PLANNED AUDIT RECORD CONTENT				х
AU-4	Audit Storage Capacity		Х	Х	Х
AU-4(1)	AUDIT STORAGE CAPACITY   TRANSFER TO ALTERNATE STORAGE				
AU-5	Response to Audit Processing Failures		Х	Х	Х
AU-5(1)	RESPONSE TO AUDIT PROCESSING FAILURES   AUDIT STORAGE CAPACITY				Х
AU-5(2)	RESPONSE TO AUDIT PROCESSING FAILURES   REAL-TIME ALERTS				Х
AU-5(3)	RESPONSE TO AUDIT PROCESSING FAILURES   CONFIGURABLE TRAFFIC VOLUME THRESHOLDS				
AU-5(4)	RESPONSE TO AUDIT PROCESSING FAILURES   SHUTDOWN ON FAILURE				
AU-6	Audit Review, Analysis, and Reporting		Х	Х	Х
AU-6(1)	AUDIT REVIEW, ANALYSIS, AND REPORTING   PROCESS INTEGRATION			Х	Х
AU-6(3)	AUDIT REVIEW, ANALYSIS, AND REPORTING   CORRELATE AUDIT REPOSITORIES			Х	Х
AU-6(4)	AUDIT REVIEW, ANALYSIS, AND REPORTING   CENTRAL REVIEW AND ANALYSIS				
AU-6(5)	AUDIT REVIEW, ANALYSIS, AND REPORTING   INTEGRATION / SCANNING AND MONITORING CAPABILITIES				Х
AU-6(6)	AUDIT REVIEW, ANALYSIS, AND REPORTING   CORRELATION WITH PHYSICAL MONITORING				Х
AU-6(7)	AUDIT REVIEW, ANALYSIS, AND REPORTING   PERMITTED ACTIONS				S
AU-6(8)	AUDIT REVIEW, ANALYSIS, AND REPORTING   FULL TEXT ANALYSIS OF PRIVILEGED COMMANDS				
AU-6(9)	AUDIT REVIEW, ANALYSIS, AND REPORTING   CORRELATION WITH INFORMATION FROM NONTECHNICAL SOURCES				
AU-6(10)	AUDIT REVIEW, ANALYSIS, AND REPORTING   AUDIT LEVEL ADJUSTMENT				
AU-7	Audit Reduction and Report Generation			Х	Х
AU-7(1)	AUDIT REDUCTION AND REPORT GENERATION   AUTOMATIC PROCESSING			Х	Х
AU-7(2)	AUDIT REDUCTION AND REPORT GENERATION   AUTOMATIC SORT AND SEARCH				
AU-8	Time Stamps		Х	Х	Х
AU-8(1)	TIME STAMPS   SYNCHRONIZATION WITH AUTHORITATIVE TIME SOURCE			Х	Х
AU-8(2)	TIME STAMPS   SECONDARY AUTHORITATIVE TIME SOURCE				
AU-9	Protection of Audit Information		Х	Х	Х
AU-9(1)	PROTECTION OF AUDIT INFORMATION   HARDWARE WRITE-ONCE MEDIA				
AU-9(2)	PROTECTION OF AUDIT INFORMATION   AUDIT BACKUP ON SEPARATE PHYSICAL SYSTEMS / COMPONENTS				Х
AU-9(3)	PROTECTION OF AUDIT INFORMATION   CRYPTOGRAPHIC PROTECTION				Х
AU-9(4)	PROTECTION OF AUDIT INFORMATION   ACCESS BY SUBSET OF PRIVILEGED USERS			Х	Х
AU-9(5)	PROTECTION OF AUDIT INFORMATION   DUAL AUTHORIZATION				S
AU-9(6)	PROTECTION OF AUDIT INFORMATION   READ-ONLY ACCESS				
AU-10	Non-repudiation				X
AU-10(1)	NON-REPUDIATION   ASSOCIATION OF IDENTITIES				S
AU-10(2)	NON-REPUDIATION   VALIDATE BINDING OF INFORMATION PRODUCER IDENTITY				S
AU-10(3)	NON-REPUDIATION   CHAIN OF CUSTODY				S
AU-10(4)	NON-REPUDIATION   VALIDATE BINDING OF INFORMATION REVIEWER IDENTITY				S
AU-11	Audit Record Retention		Х	Х	Х

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET IV	SET	SET II	SET	
AU-11(1)	AUDIT RECORD RETENTION   LONG-TERM RETRIEVAL CAPABILITY					
AU-12	Audit Generation		Х	Х	Х	
AU-12(1)	AUDIT GENERATION   SYSTEM-WIDE / TIME-CORRELATED AUDIT TRAIL				Х	
AU-12(2)	AUDIT GENERATION   STANDARDIZED FORMATS					
AU-12(3)	AUDIT GENERATION   CHANGES BY AUTHORIZED INDIVIDUALS				Х	
AU-13	Monitoring for Information Disclosure					
AU-13(1)	MONITORING FOR INFORMATION DISCLOSURE   USE OF AUTOMATED TOOLS					
AU-13(2)	MONITORING FOR INFORMATION DISCLOSURE   REVIEW OF MONITORED SITES					
AU-14	Session Audit				S	
AU-14(1)	SESSION AUDIT   SYSTEM START-UP				Х	
AU-14(2)	SESSION AUDIT   CAPTURE/RECORD AND LOG CONTENT				Х	
AU-14(3)	SESSION AUDIT   REMOTE VIEWING / LISTENING					
AU-15	Alternate Audit Capability					
AU-16	Cross-Organizational Auditing					
AU-16(1)	CROSS-ORGANIZATIONAL AUDITING   IDENTITY PRESERVATION					
AU-16(2)	CROSS-ORGANIZATIONAL AUDITING   SHARING OF AUDIT INFORMATION					

# SECURITY ASSESSMENT AND AUTHORIZATION CONTROLS

CNTL NO.	CONTROL NAME Control Enhancement Name	CONTROL SETS				
		SET IV	SET	SET	SET I	
CA-1	Security Assessment and Authorization Policies and Procedures		Х	Х	Х	
CA-2	Security Assessments		Х	Х	Х	
CA-2(1)	SECURITY ASSESSMENTS   INDEPENDENT ASSESSORS			Х	Х	
CA-2(2)	SECURITY ASSESSMENTS   SPECIALIZED ASSESSMENTS				Х	
CA-2(3)	SECURITY ASSESSMENTS   EXTERNAL ORGANIZATIONS					
CA-3	System Interconnections		Х	Х	Х	
CA-3(1)	SYSTEM INTERCONNECTIONS   UNCLASSIFIED NATIONAL SECURITY SYSTEM CONNECTIONS				S	
CA-3(2)	SYSTEM INTERCONNECTIONS   CLASSIFIED NATIONAL SECURITY SYSTEM CONNECTIONS				S	
CA-3(3)	SYSTEM INTERCONNECTIONS   UNCLASSIFIED NON-NATIONAL SECURITY SYSTEM CONNECTIONS				Х	
CA-3(4)	SYSTEM INTERCONNECTIONS   CONNECTIONS TO PUBLIC NETWORKS				Х	
CA-3(5)	SYSTEM INTERCONNECTIONS   RESTRICTIONS ON EXTERNAL SYSTEM CONNECTIONS			Х	Х	
CA-5	Plan of Action and Milestones		Х	Х	Х	
CA-5(1)	PLAN OF ACTION AND MILESTONES   AUTOMATION SUPPORT FOR ACCURACY / CURRENCY					
CA-6	Security Authorization		Х	Х	Х	
CA-7	Continuous Monitoring		Х	Х	Х	
CA-7(1)	CONTINUOUS MONITORING   INDEPENDENT ASSESSMENT			Х	Х	
CA-7(3)	CONTINUOUS MONITORING   TREND ANALYSES					
CA-8	Penetration Testing				Х	
CA-8(1)	PENETRATION TESTING   INDEPENDENT PENETRATION AGENT OR TEAM			Х	Х	
CA-8(2)	PENETRATION TESTING   RED TEAM EXERCISES				S	
CA-9	Internal System Connections		Х	Х	Х	
CA-9(1)	INTERNAL SYSTEM CONNECTIONS   SECURITY COMPLIANCE CHECKS				S	

# CONFIGURATION MANAGEMENT CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	CONTROL SETS				
		SET IV	SET	SET	SET		
CM-1	Configuration Management Policy and Procedures	х	х	х	х		
CM-2	Baseline Configuration		Х	Х	Х		
CM-2(1)	BASELINE CONFIGURATION   REVIEWS AND UPDATES			Х	Х		
CM-2(2)	BASELINE CONFIGURATION   AUTOMATION SUPPORT FOR ACCURACY / CURRENCY				Х		
CM-2(3)	BASELINE CONFIGURATION   RETENTION OF PREVIOUS CONFIGURATIONS			Х	Х		
CM-2(6)	BASELINE CONFIGURATION   DEVELOPMENT AND TEST ENVIRONMENTS						
CM-2(7)	BASELINE CONFIGURATION   CONFIGURE SYSTEMS, COMPONENTS, OR DEVICES FOR HIGH-RISK AREAS			х	Х		
CM-3	Configuration Change Control	Х		Х	Х		
CM-3(1)	CONFIGURATION CHANGE CONTROL   AUTOMATED DOCUMENT / NOTIFICATION / PROHIBITION OF CHANGES				х		
CM-3(2)	CONFIGURATION CHANGE CONTROL   TEST / VALIDATE / DOCUMENT CHANGES			Х	Х		
CM-3(3)	CONFIGURATION CHANGE CONTROL   AUTOMATED CHANGE IMPLEMENTATION						
CM-3(4)	CONFIGURATION CHANGE CONTROL   SECURITY REPRESENTATIVE						
CM-3(5)	CONFIGURATION CHANGE CONTROL   AUTOMATED SECURITY RESPONSE						
CM-3(6)	CONFIGURATION CHANGE CONTROL   CRYPTOGRAPHY MANAGEMENT						
CM-4	Security Impact Analysis	Х	Х	Х	Х		
CM-4(1)	SECURITY IMPACT ANALYSIS   SEPARATE TEST ENVIRONMENTS				Х		
CM-4(2)	SECURITY IMPACT ANALYSIS   VERIFICATION OF SECURITY FUNCTIONS				S		
CM-5	Access Restrictions for Change	Х	Х	Х	Х		
CM-5(1)	ACCESS RESTRICTIONS FOR CHANGE   AUTOMATED ACCESS ENFORCEMENT / AUDITING				Х		
CM-5(2)	ACCESS RESTRICTIONS FOR CHANGE   REVIEW SYSTEM CHANGES				Х		
CM-5(3)	ACCESS RESTRICTIONS FOR CHANGE   SIGNED COMPONENTS				Х		
CM-5(4)	ACCESS RESTRICTIONS FOR CHANGE   DUAL AUTHORIZATION				S		
CM-5(5)	ACCESS RESTRICTIONS FOR CHANGE   LIMIT PRODUCTION / OPERATIONAL PRIVILEGES						
CM-5(6)	ACCESS RESTRICTIONS FOR CHANGE   LIMIT LIBRARY PRIVILEGES						
CM-6	Configuration Settings		Х	Х	Х		
CM-6(1)	CONFIGURATION SETTINGS   AUTOMATED CENTRAL MANAGEMENT / APPLICATION / VERIFICATION				Х		
CM-6(2)	CONFIGURATION SETTINGS   RESPOND TO UNAUTHORIZED CHANGES				Х		
CM-7	Least Functionality		Х	Х	Х		
CM-7(1)	LEAST FUNCTIONALITY   PERIODIC REVIEW			Х	Х		
CM-7(2)	LEAST FUNCTIONALITY   PREVENT PROGRAM EXECUTION			Х	Х		
CM-7(3)	LEAST FUNCTIONALITY   REGISTRATION COMPLIANCE						
CM-7(4)	LEAST FUNCTIONALITY   UNAUTHORIZED SOFTWARE / BLACKLISTING			Х			
CM-7(5)	LEAST FUNCTIONALITY   AUTHORIZED SOFTWARE / WHITELISTING				Х		
CM-8	Information System Component Inventory	Х	Х	Х	Х		
CM-8(1)	INFORMATION SYSTEM COMPONENT INVENTORY   UPDATES DURING INSTALLATIONS / REMOVALS			Х	Х		
CM-8(2)	INFORMATION SYSTEM COMPONENT INVENTORY   AUTOMATED MAINTENANCE				Х		
CM-8(3)	INFORMATION SYSTEM COMPONENT INVENTORY   AUTOMATED UNAUTHORIZED COMPONENT DETECTION			Х	Х		
CM-8(4)	INFORMATION SYSTEM COMPONENT INVENTORY   ACCOUNTABILITY INFORMATION				Х		
CM-8(5)	INFORMATION SYSTEM COMPONENT INVENTORY   NO DUPLICATE ACCOUNTING OF COMPONENTS			Х	Х		
CM-8(6)	INFORMATION SYSTEM COMPONENT INVENTORY   ASSESSED CONFIGURATIONS / APPROVED DEVIATIONS						
CM-8(7)	INFORMATION SYSTEM COMPONENT INVENTORY   CENTRALIZED REPOSITORY						
CM-8(8)	INFORMATION SYSTEM COMPONENT INVENTORY   AUTOMATED LOCATION TRACKING						

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	ONTRO	DL SE	rs
		SET IV	SET III	SET II	SET I
CM-8(9)	INFORMATION SYSTEM COMPONENT INVENTORY   ASSIGNMENT OF COMPONENTS TO SYSTEMS				
CM-9	Configuration Management Plan			Х	Х
CM-9(1)	CONFIGURATION MANAGEMENT PLAN   ASSIGNMENT OF RESPONSIBILITY				
CM-10	Software Usage Restrictions		Х	Х	Х
CM-10(1)	SOFTWARE USAGE RESTRICTIONS   OPEN SOURCE SOFTWARE				
CM-11	User-Installed Software		Х	Х	Х
CM-11(1)	USER-INSTALLED SOFTWARE   ALERTS FOR UNAUTHORIZED INSTALLATIONS				S
CM-11(2)	USER-INSTALLED SOFTWARE   PROHIBIT INSTALLATION WITHOUT PRIVILEGED STATUS				S

# CONTINGENCY PLANNING CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	CONTROL SETS				
		SET IV	SET III	SET II	SET I		
CP-1	Contingency Planning Policy and Procedures		Х	Х	Х		
CP-2	Contingency Plan		Х	Х	Х		
CP-2(1)	CONTINGENCY PLAN   COORDINATE WITH RELATED PLANS			Х	Х		
CP-2(2)	CONTINGENCY PLAN   CAPACITY PLANNING				Х		
CP-2(3)	CONTINGENCY PLAN   RESUME ESSENTIAL MISSIONS / BUSINESS FUNCTIONS			Х	Х		
CP-2(4)	CONTINGENCY PLAN   RESUME ALL MISSIONS / BUSINESS FUNCTIONS				Х		
CP-2(5)	CONTINGENCY PLAN   CONTINUE ESSENTIAL MISSIONS / BUSINESS FUNCTIONS				Х		
CP-2(6)	CONTINGENCY PLAN   ALTERNATE PROCESSING / STORAGE SITE						
CP-2(7)	CONTINGENCY PLAN   COORDINATE WITH EXTERNAL SERVICE PROVIDERS						
CP-2(8)	CONTINGENCY PLAN   IDENTIFY CRITICAL ASSETS			Х	Х		
CP-3	Contingency Training		Х	Х	Х		
CP-3(1)	CONTINGENCY TRAINING   SIMULATED EVENTS				Х		
CP-3(2)	CONTINGENCY TRAINING   AUTOMATED TRAINING ENVIRONMENTS						
CP-4	Contingency Plan Testing		Х	Х	Х		
CP-4(1)	CONTINGENCY PLAN TESTING   COORDINATE WITH RELATED PLANS			Х	Х		
CP-4(2)	CONTINGENCY PLAN TESTING   ALTERNATE PROCESSING SITE				Х		
CP-4(3)	CONTINGENCY PLAN TESTING   AUTOMATED TESTING						
CP-4(4)	CONTINGENCY PLAN TESTING   FULL RECOVERY / RECONSTITUTION						
CP-6	Alternate Storage Site			Х	Х		
CP-6(1)	ALTERNATE STORAGE SITE   SEPARATION FROM PRIMARY SITE			Х	Х		
CP-6(2)	ALTERNATE STORAGE SITE   RECOVERY TIME / POINT OBJECTIVES				Х		
CP-6(3)	ALTERNATE STORAGE SITE   ACCESSIBILITY			Х	Х		
CP-7	Alternate Processing Site			Х	Х		
CP-7(1)	ALTERNATE PROCESSING SITE   SEPARATION FROM PRIMARY SITE			Х	Х		
CP-7(2)	ALTERNATE PROCESSING SITE   ACCESSIBILITY			Х	Х		
CP-7(3)	ALTERNATE PROCESSING SITE   PRIORITY OF SERVICE			Х	Х		
CP-7(4)	ALTERNATE PROCESSING SITE   PREPARATION FOR USE				Х		
CP-7(6)	ALTERNATE PROCESSING SITE   INABILITY TO RETURN TO PRIMARY SITE						
CP-8	Telecommunications Services			Х	Х		
CP-8(1)	TELECOMMUNICATIONS SERVICES   PRIORITY OF SERVICE PROVISIONS			Х	Х		
CP-8(2)	TELECOMMUNICATIONS SERVICES   SINGLE POINTS OF FAILURE			Х	Х		
CP-8(3)	TELECOMMUNICATIONS SERVICES   SEPARATION OF PRIMARY / ALTERNATE PROVIDERS				Х		
CP-8(4)	TELECOMMUNICATIONS SERVICES   PROVIDER CONTINGENCY PLAN				Х		
CP-8(5)	TELECOMMUNICATIONS SERVICES   ALTERNATE TELECOMMUNICATION SERVICE TESTING						
CP-9	Information System Backup		Х	Х	Х		
CP-9(1)	INFORMATION SYSTEM BACKUP   TESTING FOR RELIABILITY / INTEGRITY			Х	Х		
CP-9(2)	INFORMATION SYSTEM BACKUP   TEST RESTORATION USING SAMPLING				Х		
CP-9(3)	INFORMATION SYSTEM BACKUP   SEPARATE STORAGE FOR CRITICAL INFORMATION				Х		
CP-9(5)	INFORMATION SYSTEM BACKUP   TRANSFER TO ALTERNATE STORAGE SITE				Х		
CP-9(6)	INFORMATION SYSTEM BACKUP   REDUNDANT SECONDARY SYSTEM				_		
CP-9(7)	INFORMATION SYSTEM BACKUP   DUAL AUTHORIZATION				S		
CP-10	Information System Recovery and Reconstitution		Х	Х	Х		
CP-10(2)	INFORMATION SYSTEM RECOVERY AND RECONSTITUTION   TRANSACTION RECOVERY			Х	Х		
CP-10(4)	INFORMATION SYSTEM RECOVERY AND RECONSTITUTION   RESTORE WITHIN TIME PERIOD				Х		
CP-10(6)	INFORMATION SYSTEM RECOVERY AND RECONSTITUTION   COMPONENT PROTECTION						

CNTL NO.	NO. Control Enhancement Name	CONTROL SETS						
		SET	SET	SET	SET			
		IV	III	П	1			
CP-11	Alternate Communications Protocols							
CP-12	Safe Mode			Х	Х			
CP-13	Alternative Security Mechanisms							

# **IDENTIFICATION AND AUTHENTICATION CONTROLS**

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
	Control Emiancement Name	SET IV	SET	SET	SET	
IA-1	Identification and Authentication Policy and Procedures	х	х	х	х	
IA-2	Identification and Authentication (Organizational Users)	Х	Х	Х	Х	
IA-2(1)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   NETWORK ACCESS TO PRIVILEGED ACCOUNTS		х	х	х	
IA-2(2)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   NETWORK ACCESS TO NON- PRIVILEGED ACCOUNTS			х	х	
IA-2(3)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   LOCAL ACCESS TO PRIVILEGED ACCOUNTS			х	х	
IA-2(4)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   LOCAL ACCESS TO NON- PRIVILEGED ACCOUNTS				х	
IA-2(5)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   GROUP AUTHENTICATION					
IA-2(6)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   NETWORK ACCESS TO PRIVILEGED ACCOUNTS - SEPARATE DEVICE					
IA-2(7)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   NETWORK ACCESS TO NON- PRIVILEGED ACCOUNTS - SEPARATE DEVICE					
IA-2(8)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   NETWORK ACCESS TO PRIVILEGED ACCOUNTS - REPLAY RESISTANT			х	х	
IA-2(9)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   NETWORK ACCESS TO NON- PRIVILEGED ACCOUNTS - REPLAY RESISTANT				х	
IA-2(10)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   SINGLE SIGN-ON					
IA-2(11)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   REMOTE ACCESS - SEPARATE DEVICE			Х	х	
IA-2(12)	IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS)   ACCEPTANCE OF PIV CREDENTIALS		х	х	х	
IA-2(13)	IDENTIFICATION AND AUTHENTICATION   OUT-OF-BAND AUTHENTICATION					
IA-3	Device Identification and Authentication			Х	Х	
IA-3(1)	DEVICE IDENTIFICATION AND AUTHENTICATION   CRYPTOGRAPHIC BIDIRECTIONAL AUTHENTICATION					
IA-3(3)	DEVICE IDENTIFICATION AND AUTHENTICATION   DYNAMIC ADDRESS ALLOCATION					
IA-3(4)	DEVICE IDENTIFICATION AND AUTHENTICATION   DEVICE ATTESTATION				S	
IA-4	Identifier Management		Х	Х	Х	
IA-4(1)	IDENTIFIER MANAGEMENT   PROHIBIT ACCOUNT IDENTIFIERS AS PUBLIC IDENTIFIERS					
IA-4(2)	IDENTIFIER MANAGEMENT   SUPERVISOR AUTHORIZATION				S	
IA-4(3)	IDENTIFIER MANAGEMENT   MULTIPLE FORMS OF CERTIFICATION					
IA-4(4)	IDENTIFIER MANAGEMENT   IDENTIFY USER STATUS					
IA-4(5)	IDENTIFIER MANAGEMENT   DYNAMIC MANAGEMENT					
IA-4(6)	IDENTIFIER MANAGEMENT   CROSS-ORGANIZATION MANAGEMENT					
IA-4(7)	IDENTIFIER MANAGEMENT   IN-PERSON REGISTRATION				S	
IA-5	Authenticator Management		Х	Х	Х	
IA-5(1)	AUTHENTICATOR MANAGEMENT   PASSWORD-BASED AUTHENTICATION		Х	Х	Х	
IA-5(2)	AUTHENTICATOR MANAGEMENT   PKI-BASED AUTHENTICATION			Х	Х	
IA-5(3)	AUTHENTICATOR MANAGEMENT   IN-PERSON OR TRUSTED THIRD-PARTY REGISTRATION			Х	х	
IA-5(4)	AUTHENTICATOR MANAGEMENT   AUTOMATED SUPPORT FOR PASSWORD STRENGTH DETERMINATION				S	
IA-5(5)	AUTHENTICATOR MANAGEMENT   CHANGE AUTHENTICATORS PRIOR TO DELIVERY					
IA-5(6)	AUTHENTICATOR MANAGEMENT   PROTECTION OF AUTHENTICATORS					
IA-5(7)	AUTHENTICATOR MANAGEMENT   NO EMBEDDED UNENCRYPTED STATIC AUTHENTICATORS					
IA-5(8)	AUTHENTICATOR MANAGEMENT   MULTIPLE INFORMATION SYSTEM ACCOUNTS					

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET IV	SET	SET	SET	
IA-5(9)	AUTHENTICATOR MANAGEMENT   CROSS-ORGANIZATION CREDENTIAL MANAGEMENT					
IA-5(10)	AUTHENTICATOR MANAGEMENT   DYNAMIC CREDENTIAL ASSOCIATION					
IA-5(11)	AUTHENTICATOR MANAGEMENT   HARDWARE TOKEN-BASED AUTHENTICATION		Х	Х	Х	
IA-5(12)	AUTHENTICATOR MANAGEMENT   BIOMETRIC-BASED AUTHENTICATION					
IA-5(13)	AUTHENTICATOR MANAGEMENT   EXPIRATION OF CACHED AUTHENTICATORS					
IA-5(14)	AUTHENTICATOR MANAGEMENT   MANAGING CONTENT OF PKI TRUST STORES					
IA-5(15)	AUTHENTICATOR MANAGEMENT   FICAM-APPROVED PRODUCTS AND SERVICES					
IA-6	Authenticator Feedback		Х	Х	Х	
IA-7	Cryptographic Module Authentication		Х	Х	Х	
IA-8	Identification and Authentication (Non-Organizational Users)		Х	Х	Х	
IA-8(1)	IDENTIFICATION AND AUTHENTICATION (NON-ORGANIZATIONAL USERS)   ACCEPTANCE OF PIV CREDENTIALS FROM OTHER AGENCIES		х	х	х	
IA-8(2)	IDENTIFICATION AND AUTHENTICATION (NON-ORGANIZATIONAL USERS)   ACCEPTANCE OF THIRD-PARTY CREDENTIALS		Х	Х	Х	
IA-8(3)	IDENTIFICATION AND AUTHENTICATION (NON-ORGANIZATIONAL USERS)   USE OF FICAM-APPROVED PRODUCTS		Х	Х	Х	
IA-8(4)	IDENTIFICATION AND AUTHENTICATION (NON-ORGANIZATIONAL USERS)   USE OF FICAM-ISSUED PROFILES		х	х	х	
IA-8(5)	IDENTIFICATION AND AUTHENTICATION (NON-ORGANIZATIONAL USERS)   ACCEPTANCE OF PIV-I CREDENTIALS					
IA-9	Service Identification and Authentication					
IA-9(1)	SERVICE IDENTIFICATION AND AUTHENTICATION   INFORMATION EXCHANGE					
IA-9(2)	SERVICE IDENTIFICATION AND AUTHENTICATION   TRANSMISSION OF DECISIONS					
IA-10	Adaptive Identification and Authentication					
IA-11	Re-authentication					

# INCIDENT RESPONSE CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET IV	SET III	SET II	SET I	
IR-1	Incident Response Policy and Procedures	Х	Х	Х	Х	
IR-2	Incident Response Training	Х	Х	Х	Х	
IR-2(1)	INCIDENT RESPONSE TRAINING   SIMULATED EVENTS				Х	
IR-2(2)	INCIDENT RESPONSE TRAINING   AUTOMATED TRAINING ENVIRONMENTS				Х	
IR-3	Incident Response Testing			Х	Х	
IR-3(1)	INCIDENT RESPONSE TESTING   AUTOMATED TESTING					
IR-3(2)	INCIDENT RESPONSE TESTING   COORDINATION WITH RELATED PLANS			Х	Х	
IR-4	Incident Handling	Х	Х	Х	Х	
IR-4(1)	INCIDENT HANDLING   AUTOMATED INCIDENT HANDLING PROCESSES			Х	Х	
IR-4(2)	INCIDENT HANDLING   DYNAMIC RECONFIGURATION					
IR-4(3)	INCIDENT HANDLING   CONTINUITY OF OPERATIONS					
IR-4(4)	INCIDENT HANDLING   INFORMATION CORRELATION				Х	
IR-4(5)	INCIDENT HANDLING   AUTOMATIC DISABLING OF INFORMATION SYSTEM					
IR-4(6)	INCIDENT HANDLING   INSIDER THREATS - SPECIFIC CAPABILITIES					
IR-4(7)	INCIDENT HANDLING   INSIDER THREATS - INTRA-ORGANIZATION COORDINATION					
IR-4(8)	INCIDENT HANDLING   CORRELATION WITH EXTERNAL ORGANIZATIONS					
IR-4(9)	INCIDENT HANDLING   DYNAMIC RESPONSE CAPABILITY					
IR-4(10)	INCIDENT HANDLING   SUPPLY CHAIN COORDINATION					
IR-5	Incident Monitoring	Х	Х	Х	Х	
IR-5(1)	INCIDENT MONITORING   AUTOMATED TRACKING / DATA COLLECTION / ANALYSIS				Х	
IR-6	Incident Reporting	Х	Х	Х	Х	
IR-6(1)	INCIDENT REPORTING   AUTOMATED REPORTING			Х	Х	
IR-6(2)	INCIDENT REPORTING   VULNERABILITIES RELATED TO INCIDENTS				S	
IR-6(3)	INCIDENT REPORTING   COORDINATION WITH SUPPLY CHAIN					
IR-7	Incident Response Assistance		Х	Х	Х	
IR-7(1)	INCIDENT RESPONSE ASSISTANCE   AUTOMATION SUPPORT FOR AVAILABILITY OF INFORMATION / SUPPORT			х	х	
IR-7(2)	INCIDENT RESPONSE ASSISTANCE   COORDINATION WITH EXTERNAL PROVIDERS					
IR-8	Incident Response Plan	Х	Х	Х	Х	
IR-9	Information Spillage Response				S	
IR-9(1)	INFORMATION SPILLAGE RESPONSE   RESPONSIBLE PERSONNEL				S	
IR-9(2)	INFORMATION SPILLAGE RESPONSE   TRAINING				S	
IR-9(3)	INFORMATION SPILLAGE RESPONSE   POST-SPILL OPERATIONS				S	
IR-9(4)	INFORMATION SPILLAGE RESPONSE   EXPOSURE TO UNAUTHORIZED PERSONNEL				S	
IR-10	Integrated Information Security Analysis Team				х	

#### MAINTENANCE CONTROLS

CNTL NO.	CONTROL NAME Control Enhancement Name	C	ONTRO	DL SE	гѕ
	Control Limenson on Trains	SET IV	SET III	Set II	SET I
MA-1	System Maintenance Policy and Procedures	Х	Х	Х	Х
MA-2	Controlled Maintenance		Х	Х	Х
MA-2(2)	CONTROLLED MAINTENANCE   AUTOMATED MAINTENANCE ACTIVITIES				Х
MA-3	Maintenance Tools			Х	Х
MA-3(1)	MAINTENANCE TOOLS   INSPECT TOOLS			Х	Х
MA-3(2)	MAINTENANCE TOOLS   INSPECT MEDIA			Х	Х
MA-3(3)	MAINTENANCE TOOLS   PREVENT UNAUTHORIZED REMOVAL				Х
MA-3(4)	MAINTENANCE TOOLS   RESTRICTED TOOL USE				
MA-4	Nonlocal Maintenance		Х	Х	Х
MA-4(1)	NONLOCAL MAINTENANCE   AUDITING AND REVIEW				
MA-4(2)	NONLOCAL MAINTENANCE   DOCUMENT NONLOCAL MAINTENANCE			Х	Х
MA-4(3)	NONLOCAL MAINTENANCE   COMPARABLE SECURITY / SANITIZATION				Х
MA-4(4)	NONLOCAL MAINTENANCE   AUTHENTICATION / SEPARATION OF MAINTENANCE SESSIONS				
MA-4(5)	NONLOCAL MAINTENANCE   APPROVALS AND NOTIFICATIONS				
MA-4(6)	NONLOCAL MAINTENANCE   CRYPTOGRAPHIC PROTECTION				
MA-4(7)	NONLOCAL MAINTENANCE   REMOTE DISCONNECT VERIFICATION				
MA-5	Maintenance Personnel		Х	Х	Х
MA-5(1)	MAINTENANCE PERSONNEL   INDIVIDUALS WITHOUT APPROPRIATE ACCESS				Х
MA-5(2)	MAINTENANCE PERSONNEL   SECURITY CLEARANCES FOR CLASSIFIED SYSTEMS				S
MA-5(3)	MAINTENANCE PERSONNEL   CITIZENSHIP REQUIREMENTS FOR CLASSIFIED SYSTEMS				Х
MA-5(4)	MAINTENANCE PERSONNEL   FOREIGN NATIONALS				
MA-5(5)	MAINTENANCE PERSONNEL   NON-SYSTEM-RELATED MAINTENANCE				
MA-6	Timely Maintenance			Х	Х
MA-6(1)	TIMELY MAINTENANCE   PREVENTIVE MAINTENANCE				
MA-6(2)	TIMELY MAINTENANCE   PREDICTIVE MAINTENANCE				
MA-6(3)	TIMELY MAINTENANCE   AUTOMATED SUPPORT FOR PREDICTIVE MAINTENANCE				

# MEDIA PROTECTION CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET IV	SET III	SET II	SET I	
MP-1	Media Protection Policy and Procedures	Х	Х	Х	Х	
MP-2	Media Access	Х	Х	Х	Х	
MP-3	Media Marking			Х	Х	
MP-4	Media Storage			Х	Х	
MP-4(2)	MEDIA STORAGE   AUTOMATED RESTRICTED ACCESS					
MP-5	Media Transport			Х	Х	
MP-5(3)	MEDIA TRANSPORT   CUSTODIANS					
MP-5(4)	MEDIA TRANSPORT   CRYPTOGRAPHIC PROTECTION			Х	Х	
MP-6	Media Sanitization		Х	Х	Х	
MP-6(1)	MEDIA SANITIZATION   REVIEW / APPROVE / TRACK / DOCUMENT / VERIFY				Х	
MP-6(2)	MEDIA SANITIZATION   EQUIPMENT TESTING				Х	
MP-6(3)	MEDIA SANITIZATION   NONDESTRUCTIVE TECHNIQUES				Х	
MP-6(7)	MEDIA SANITIZATION   DUAL AUTHORIZATION				S	
MP-6(8)	MEDIA SANITIZATION   REMOTE PURGING / WIPING OF INFORMATION					
MP-7	Media Use		Х	Х	Х	
MP-7(1)	MEDIA USE   PROHIBIT USE WITHOUT OWNER			Х	х	
MP-7(2)	MEDIA USE   PROHIBIT USE OF SANITIZATION-RESISTANT MEDIA				S	
MP-8	Media Downgrading					
MP-8(1)	MEDIA DOWNGRADING   DOCUMENTATION OF PROCESS					
MP-8(2)	MEDIA DOWNGRADING   EQUIPMENT TESTING					
MP-8(3)	MEDIA DOWNGRADING   CONTROLLED UNCLASSIFIED INFORMATION					
MP-8(4)	MEDIA DOWNGRADING   CLASSIFIED INFORMATION					

# PHYSICAL AND ENVIRONMENTAL PROTECTION CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET	SET	SET	SET	
PE-1	Physical and Environmental Protection Policy and Procedures		Х	Х	Х	
PE-2	Physical Access Authorizations					
PE-2(1)	PHYSICAL ACCESS AUTHORIZATIONS   ACCESS BY POSITION / ROLE					
PE-2(2)	PHYSICAL ACCESS AUTHORIZATIONS   TWO FORMS OF IDENTIFICATION					
PE-2(3)	PHYSICAL ACCESS AUTHORIZATIONS   RESTRICT UNESCORTED ACCESS					
PE-3	Physical Access Control					
PE-3(1)	PHYSICAL ACCESS CONTROL   INFORMATION SYSTEM ACCESS					
PE-3(2)	PHYSICAL ACCESS CONTROL   FACILITY / INFORMATION SYSTEM BOUNDARIES					
PE-3(3)	PHYSICAL ACCESS CONTROL   CONTINUOUS GUARDS / ALARMS / MONITORING					
PE-3(4)	PHYSICAL ACCESS CONTROL   LOCKABLE CASINGS					
PE-3(5)	PHYSICAL ACCESS CONTROL   TAMPER PROTECTION					
PE-3(6)	PHYSICAL ACCESS CONTROL   FACILITY PENETRATION TESTING					
PE-4	Access Control for Transmission Medium			Х	Х	
PE-5	Access Control for Output Devices			Х	Х	
PE-5(1)	ACCESS CONTROL FOR OUTPUT DEVICES   ACCESS TO OUTPUT BY AUTHORIZED INDIVIDUALS					
PE-5(2)	ACCESS CONTROL FOR OUTPUT DEVICES   ACCESS TO OUTPUT BY INDIVIDUAL IDENTITY					
PE-5(3)	ACCESS CONTROL FOR OUTPUT DEVICES   MARKING OUTPUT DEVICES					
PE-6	Monitoring Physical Access				Х	
PE-6(1)	MONITORING PHYSICAL ACCESS   INTRUSION ALARMS / SURVEILLANCE EQUIPMENT					
PE-6(2)	MONITORING PHYSICAL ACCESS   AUTOMATED INTRUSION RECOGNITION / RESPONSES					
PE-6(3)	MONITORING PHYSICAL ACCESS   VIDEO SURVEILLANCE					
PE-6(4)	MONITORING PHYSICAL ACCESS   MONITORING PHYSICAL ACCESS TO INFORMATION SYSTEMS				S	
PE-8	Visitor Access Records					
PE-8(1)	VISITOR ACCESS RECORDS   AUTOMATED RECORDS MAINTENANCE / REVIEW					
PE-9	Power Equipment and Cabling					
PE-9(1)	POWER EQUIPMENT AND CABLING   REDUNDANT CABLING					
PE-9(2)	POWER EQUIPMENT AND CABLING   AUTOMATIC VOLTAGE CONTROLS					
PE-10	Emergency Shutoff					
PE-11	Emergency Power					
PE-11(1)	EMERGENCY POWER   LONG-TERM ALTERNATE POWER SUPPLY - MINIMAL OPERATIONAL CAPABILITY					
PE-11(2)	EMERGENCY POWER   LONG-TERM ALTERNATE POWER SUPPLY - SELF-CONTAINED					
PE-12	Emergency Lighting					
PE-12(1)	EMERGENCY LIGHTING   ESSENTIAL MISSIONS / BUSINESS FUNCTIONS					
PE-13	Fire Protection					
PE-13(1)	FIRE PROTECTION   DETECTION DEVICES / SYSTEMS					
PE-13(2)	FIRE PROTECTION   SUPPRESSION DEVICES / SYSTEMS					
PE-13(3)	FIRE PROTECTION   AUTOMATIC FIRE SUPPRESSION					
PE-13(4)	FIRE PROTECTION   INSPECTIONS					
PE-14	Temperature and Humidity Controls					
PE-14(1)	TEMPERATURE AND HUMIDITY CONTROLS   AUTOMATIC CONTROLS					
PE-14(2)	TEMPERATURE AND HUMIDITY CONTROLS   MONITORING WITH ALARMS / NOTIFICATIONS					
PE-15	Water Damage Protection					
PE-15(1)	WATER DAMAGE PROTECTION   AUTOMATION SUPPORT					
PE-16	Delivery and Removal					

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SE		DL SE	ETS
		SET IV	SET	SET	SET
PE-17	Alternate Work Site				
PE-18	Location of Information System Components				
PE-18(1)	LOCATION OF INFORMATION SYSTEM COMPONENTS   FACILITY SITE				
PE-19	Information Leakage				
PE-19(1)	INFORMATION LEAKAGE   NATIONAL EMISSIONS / TEMPEST POLICIES AND PROCEDURES				
PE-20	Asset Monitoring and Tracking				

# **PLANNING CONTROLS**

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	CONTROL SETS				
		SET IV	SET III	SET II	SET I		
PL-1	Security Planning Policy and Procedures		Х	Х	Х		
PL-2	System Security Plan		Х	Х	Х		
PL-2(3)	SYSTEM SECURITY PLAN   PLAN / COORDINATE WITH OTHER ORGANIZATIONAL ENTITIES			Х	Х		
PL-4	Rules of Behavior		Х	Х	Х		
PL-4(1)	RULES OF BEHAVIOR   SOCIAL MEDIA AND NETWORKING RESTRICTIONS			Х	Х		
PL-7	Security Concept of Operations				Х		
PL-8	Information Security Architecture			Х	Х		
PL-8(1)	INFORMATION SECURITY ARCHITECTURE   DEFENSE-IN-DEPTH				S		
PL-8(2)	INFORMATION SECURITY ARCHITECTURE   SUPPLIER DIVERSITY				S		
PL-9	Central Management						

# PERSONNEL SECURITY CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
		SET IV	SET III	SET II	SET I	
PS-1	Personnel Security Policy and Procedures					
PS-2	Position Risk Designation					
PS-3	Personnel Screening					
PS-3(1)	PERSONNEL SCREENING   CLASSIFIED INFORMATION					
PS-3(2)	PERSONNEL SCREENING   FORMAL INDOCTRINATION					
PS-3(3)	PERSONNEL SCREENING   INFORMATION WITH SPECIAL PROTECTION MEASURES					
PS-4	Personnel Termination					
PS-4(1)	PERSONNEL TERMINATION   POST-EMPLOYMENT REQUIREMENTS					
PS-4(2)	PERSONNEL TERMINATION   AUTOMATED NOTIFICATION					
PS-5	Personnel Transfer					
PS-6	Access Agreements					
PS-6(2)	ACCESS AGREEMENTS   CLASSIFIED INFORMATION REQUIRING SPECIAL PROTECTION					
PS-6(3)	ACCESS AGREEMENTS   POST-EMPLOYMENT REQUIREMENTS					
PS-7	Third-Party Personnel Security					
PS-8	Personnel Sanctions					

# **RISK ASSESSMENT CONTROLS**

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	CONTROL SETS				
		SET IV	SET	SET II	SET I		
RA-1	Risk Assessment Policy and Procedures		Х	Х	Х		
RA-2	Security Categorization						
RA-3	Risk Assessment						
RA-5	Vulnerability Scanning		Х	Х	Х		
RA-5(1)	VULNERABILITY SCANNING   UPDATE TOOL CAPABILITY			Х	Х		
RA-5(2)	VULNERABILITY SCANNING   UPDATE BY FREQUENCY / PRIOR TO NEW SCAN / WHEN IDENTIFIED			Х	Х		
RA-5(3)	VULNERABILITY SCANNING   BREADTH / DEPTH OF COVERAGE				S		
RA-5(4)	VULNERABILITY SCANNING   DISCOVERABLE INFORMATION				Х		
RA-5(5)	VULNERABILITY SCANNING   PRIVILEGED ACCESS			Х	Х		
RA-5(6)	VULNERABILITY SCANNING   AUTOMATED TREND ANALYSES						
RA-5(8)	VULNERABILITY SCANNING   REVIEW HISTORIC AUDIT LOGS				S		
RA-5(10)	VULNERABILITY SCANNING   CORRELATE SCANNING INFORMATION						
RA-6	Technical Surveillance Countermeasures Survey						

# SYSTEM AND SERVICES ACQUISITION CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
	Control Elitancement Name	SET IV	SET III	SET II	SET	
SA-1	System and Services Acquisition Policy and Procedures	Х	Х	Х	Х	
SA-2	Allocation of Resources		Х	Х	х	
SA-3	System Development Life Cycle		Х	Х	Х	
SA-4	Acquisition Process		Х	Х	Х	
SA-4(1)	ACQUISITION PROCESS   FUNCTIONAL PROPERTIES OF SECURITY CONTROLS			Х	Х	
SA-4(2)	ACQUISITION PROCESS   DESIGN / IMPLEMENTATION INFORMATION FOR SECURITY CONTROLS			Х	Х	
SA-4(3)	ACQUISITION PROCESS   DEVELOPMENT METHODS / TECHNIQUES / PRACTICES					
SA-4(5)	ACQUISITION PROCESS   SYSTEM / COMPONENT / SERVICE CONFIGURATIONS					
SA-4(6)	ACQUISITION PROCESS   USE OF INFORMATION ASSURANCE PRODUCTS					
SA-4(7)	ACQUISITION PROCESS   NIAP-APPROVED PROTECTION PROFILES					
SA-4(8)	ACQUISITION PROCESS   CONTINUOUS MONITORING PLAN					
SA-4(9)	ACQUISITION PROCESS   FUNCTIONS / PORTS / PROTOCOLS / SERVICES IN USE			Х	Х	
SA-4(10)	ACQUISITION PROCESS   USE OF APPROVED PIV PRODUCTS		Х	Х	Х	
SA-5	Information System Documentation		Х	Х	Х	
SA-8	Security Engineering Principles			Х	Х	
SA-9	External Information System Services		Х	Х	Х	
SA-9(1)	EXTERNAL INFORMATION SYSTEMS   RISK ASSESSMENTS / ORGANIZATIONAL APPROVALS					
SA-9(2)	EXTERNAL INFORMATION SYSTEMS   IDENTIFICATION OF FUNCTIONS / PORTS / PROTOCOLS / SERVICES			Х	X	
SA-9(3)	EXTERNAL INFORMATION SYSTEMS   ESTABLISH / MAINTAIN TRUST RELATIONSHIP WITH PROVIDERS				S	
SA-9(4)	EXTERNAL INFORMATION SYSTEMS   CONSISTENT INTERESTS OF CONSUMERS AND PROVIDERS					
SA-9(5)	EXTERNAL INFORMATION SYSTEMS   PROCESSING, STORAGE, AND SERVICE LOCATION					
SA-10	Developer Configuration Management			Х	Х	
SA-10(1)	DEVELOPER CONFIGURATION MANAGEMENT   SOFTWARE / FIRMWARE INTEGRITY VERIFICATION				S	
SA-10(2)	DEVELOPER CONFIGURATION MANAGEMENT   ALTERNATIVE CONFIGURATION MANAGEMENT PROCESSES				S	
SA-10(3)	DEVELOPER CONFIGURATION MANAGEMENT   HARDWARE INTEGRITY VERIFICATION				S	
SA-10(4)	DEVELOPER CONFIGURATION MANAGEMENT   TRUSTED GENERATION					
SA-10(5)	DEVELOPER CONFIGURATION MANAGEMENT   MAPPING INTEGRITY FOR VERSION CONTROL					
SA-10(6)	DEVELOPER CONFIGURATION MANAGEMENT   TRUSTED DISTRIBUTION				S	
SA-11	Developer Security Testing and Evaluation			Х	Х	
SA-11(1)	DEVELOPER SECURITY TESTING AND EVALUATION   STATIC CODE ANALYSIS				S	
SA-11(2)	DEVELOPER SECURITY TESTING AND EVALUATION   THREAT AND VULNERABILITY ANALYSES				S	
SA-11(3)	DEVELOPER SECURITY TESTING AND EVALUATION   INDEPENDENT VERIFICATION OF ASSESSMENT PLANS / EVIDENCE				S	
SA-11(4)	DEVELOPER SECURITY TESTING AND EVALUATION   MANUAL CODE REVIEWS				S	
SA-11(5)	DEVELOPER SECURITY TESTING AND EVALUATION   PENETRATION TESTING				S	
SA-11(6)	DEVELOPER SECURITY TESTING AND EVALUATION   ATTACK SURFACE REVIEWS				S	
SA-11(7)	DEVELOPER SECURITY TESTING AND EVALUATION   VERIFY SCOPE OF TESTING / EVALUATION				S	
SA-11(8)	DEVELOPER SECURITY TESTING AND EVALUATION   DYNAMIC CODE ANALYSIS				S	
SA-12	Supply Chain Protection				X	
SA-12(1)	SUPPLY CHAIN PROTECTION   ACQUISITION STRATEGIES / TOOLS / METHODS				S	
SA-12(2)	SUPPLY CHAIN PROTECTION   SUPPLIER REVIEWS				S	
SA-12(5)	SUPPLY CHAIN PROTECTION   LIMITATION OF HARM					
SA-12(7)	SUPPLY CHAIN PROTECTION   ASSESSMENTS PRIOR TO SELECTION / ACCEPTANCE / UPDATE					

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	ONTRO	DL SE	TS
		SET IV	SET	SET	SET
SA-12(8)	SUPPLY CHAIN PROTECTION   USE OF ALL-SOURCE INTELLIGENCE				
SA-12(9)	SUPPLY CHAIN PROTECTION   OPERATIONS SECURITY				S
SA-12(10)	SUPPLY CHAIN PROTECTION   VALIDATE AS GENUINE AND NOT ALTERED				S
SA-12(11)	SUPPLY CHAIN PROTECTION   PENETRATION TESTING / ANALYSIS OF ELEMENTS, PROCESSES, AND ACTORS				
SA-12(12)	SUPPLY CHAIN PROTECTION   INTER-ORGANIZATIONAL AGREEMENTS				
SA-12(13)	SUPPLY CHAIN PROTECTION   CRITICAL INFORMATION SYSTEM COMPONENTS				
SA-12(14)	SUPPLY CHAIN PROTECTION   IDENTITY AND TRACEABILITY				S
SA-12(15)	SUPPLY CHAIN PROTECTION   PROCESSES TO ADDRESS WEAKNESSES OR DEFICIENCIES				
SA-13	Trustworthiness				S
SA-14	Criticality Analysis				
SA-15	Development Process, Standards, and Tools				Х
SA-15(1)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   QUALITY METRICS				S
SA-15(2)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   SECURITY TRACKING TOOLS				S
SA-15(3)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   CRITICALITY ANALYSIS				S
SA-15(4)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   THREAT MODELING / VULNERABILITY ANALYSIS				S
SA-15(5)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   ATTACK SURFACE REDUCTION				S
SA-15(6)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   CONTINUOUS IMPROVEMENT				S
SA-15(7)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   AUTOMATED VULNERABILITY ANALYSIS				S
SA-15(8)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   REUSE OF THREAT / VULNERABILITY INFORMATION				
SA-15(9)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   USE OF LIVE DATA				
SA-15(10)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   INCIDENT RESPONSE PLAN				
SA-15(11)	DEVELOPMENT PROCESS, STANDARDS, AND TOOLS   ARCHIVE INFORMATION SYSTEM / COMPONENT				
SA-16	Developer-Provided Training				Х
SA-17	Developer Security Architecture and Design				Х
SA-17(1)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   FORMAL POLICY MODEL				S
SA-17(2)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   SECURITY-RELEVANT COMPONENTS				S
SA-17(3)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   FORMAL CORRESPONDENCE				
SA-17(4)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   INFORMAL CORRESPONDENCE				
SA-17(5)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   CONCEPTUALLY SIMPLE DESIGN				
SA-17(6)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   STRUCTURE FOR TESTING				
SA-17(7)	DEVELOPER SECURITY ARCHITECTURE AND DESIGN   STRUCTURE FOR LEAST PRIVILEGE				
SA-18	Tamper Resistance and Detection				S
SA-18(1)	TAMPER RESISTANCE AND DETECTION   MULTIPLE PHASES OF SDLC				S
SA-18(2)	TAMPER RESISTANCE AND DETECTION   INSPECTION OF INFORMATION SYSTEMS, COMPONENTS, OR DEVICES				S
SA-19	Component Authenticity				S
SA-19(1)	COMPONENT AUTHENTICITY   ANTI-COUNTERFEIT TRAINING				S
SA-19(2)	COMPONENT AUTHENTICITY   CONFIGURATION CONTROL FOR COMPONENT SERVICE / REPAIR				
SA-19(3)	COMPONENT AUTHENTICITY   COMPONENT DISPOSAL				
SA-19(4)	COMPONENT AUTHENTICITY   ANTI-COUNTERFEIT SCANNING				S
SA-20	Customized Development of Critical Components				
SA-21	Developer Screening				S
SA-21(1)	DEVELOPER SCREENING   VALIDATION OF SCREENING				S
SA-22	Unsupported System Components				S

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROLS		NTROL SETS	
		SET IV	SET	SET II	SET I
SA-22(1)	UNSUPPORTED SYSTEM COMPONENTS   ALTERNATIVE SOURCES FOR CONTINUED SUPPORT				S

# SYSTEM AND COMMUNICATIONS PROTECTION CONTROLS

CNTL NO.	CONTROL NAME Control Enhancement Name	CONTROL SETS				
	Control Elinancement Name	SET SET		SET	SET	
SC-1	System and Communications Protection Policy and Procedures	Х	х	х	х	
SC-2	Application Partitioning			Х	Х	
SC-2(1)	APPLICATION PARTITIONING   INTERFACES FOR NON-PRIVILEGED USERS				S	
SC-3	Security Function Isolation				Х	
SC-3(1)	SECURITY FUNCTION ISOLATION   HARDWARE SEPARATION				S	
SC-3(2)	SECURITY FUNCTION ISOLATION   ACCESS / FLOW CONTROL FUNCTIONS				S	
SC-3(3)	SECURITY FUNCTION ISOLATION   MINIMIZE NONSECURITY FUNCTIONALITY					
SC-3(4)	SECURITY FUNCTION ISOLATION   MODULE COUPLING AND COHESIVENESS					
SC-3(5)	SECURITY FUNCTION ISOLATION   LAYERED STRUCTURES					
SC-4	Information in Shared Resources			Х	Х	
SC-4(2)	INFORMATION IN SHARED RESOURCES   PERIODS PROCESSING					
SC-5	Denial of Service Protection		Х	х	х	
SC-5(1)	DENIAL OF SERVICE PROTECTION   RESTRICT INTERNAL USERS					
SC-5(2)	DENIAL OF SERVICE PROTECTION   EXCESS CAPACITY / BANDWIDTH / REDUNDANCY					
SC-5(3)	DENIAL OF SERVICE PROTECTION   DETECTION / MONITORING					
SC-6	Resource Availability					
SC-7	Boundary Protection		Х	Х	Х	
SC-7(3)	BOUNDARY PROTECTION   ACCESS POINTS			Х	Х	
SC-7(4)	BOUNDARY PROTECTION   EXTERNAL TELECOMMUNICATIONS SERVICES			Х	Х	
SC-7(5)	BOUNDARY PROTECTION   DENY BY DEFAULT / ALLOW BY EXCEPTION			Х	Х	
SC-7(7)	BOUNDARY PROTECTION   PREVENT SPLIT TUNNELING FOR REMOTE DEVICES			Х	Х	
SC-7(8)	BOUNDARY PROTECTION   ROUTE TRAFFIC TO AUTHENTICATED PROXY SERVERS				Х	
SC-7(9)	BOUNDARY PROTECTION   RESTRICT THREATENING OUTGOING COMMUNICATIONS TRAFFIC					
SC-7(10)	BOUNDARY PROTECTION   PREVENT UNAUTHORIZED EXFILTRATION				S	
SC-7(11)	BOUNDARY PROTECTION   RESTRICT INCOMING COMMUNICATIONS TRAFFIC				S	
SC-7(12)	BOUNDARY PROTECTION   HOST-BASED PROTECTION				S	
SC-7(13)	BOUNDARY PROTECTION   ISOLATION OF SECURITY TOOLS / MECHANISMS / SUPPORT COMPONENTS					
SC-7(14)	BOUNDARY PROTECTION   PROTECTS AGAINST UNAUTHORIZED PHYSICAL CONNECTIONS				х	
SC-7(15)	BOUNDARY PROTECTION   ROUTE PRIVILEGED NETWORK ACCESSES					
SC-7(16)	BOUNDARY PROTECTION   PREVENT DISCOVERY OF COMPONENTS / DEVICES					
SC-7(17)	BOUNDARY PROTECTION   AUTOMATED ENFORCEMENT OF PROTOCOL FORMATS					
SC-7(18)	BOUNDARY PROTECTION   FAIL SECURE				Х	
SC-7(19)	BOUNDARY PROTECTION   BLOCKS COMMUNICATION FROM NON-ORGANIZATIONALLY CONFIGURED HOSTS					
SC-7(20)	BOUNDARY PROTECTION   DYNAMIC ISOLATION / SEGREGATION				S	
SC-7(21)	BOUNDARY PROTECTION   ISOLATION OF INFORMATION SYSTEM COMPONENTS				Х	
SC-7(22)	BOUNDARY PROTECTION   SEPARATE SUBNETS FOR CONNECTING TO DIFFERENT SECURITY DOMAINS					
SC-7(23)	BOUNDARY PROTECTION   DISABLE SENDER FEEDBACK ON PROTOCOL VALIDATION FAILURE					
SC-8	Transmission Confidentiality and Integrity			Х	Х	

CNTL NO.	CONTROL NAME  Control Enhancement Name	CONTROL SETS				
	Control Elinancement Name	SET IV	SET	SET	SET	
SC-8(1)	TRANSMISSION CONFIDENTIALITY AND INTEGRITY   CRYPTOGRAPHIC OR ALTERNATE PHYSICAL PROTECTION			х	х	
SC-8(2)	TRANSMISSION CONFIDENTIALITY AND INTEGRITY   PRE / POST TRANSMISSION HANDLING					
SC-8(3)	TRANSMISSION CONFIDENTIALITY AND INTEGRITY   CRYPTOGRAPHIC PROTECTION FOR MESSAGE EXTERNALS					
SC-8(4)	TRANSMISSION CONFIDENTIALITY AND INTEGRITY   CONCEAL / RANDOMIZE COMMUNICATIONS					
SC-10	Network Disconnect			Х	Х	
SC-11	Trusted Path				S	
SC-11(1)	TRUSTED PATH   LOGICAL ISOLATION				S	
SC-12	Cryptographic Key Establishment and Management		Х	Х	Х	
SC-12(1)	CRYPTOGRAPHIC KEY ESTABLISHMENT AND MANAGEMENT   AVAILABILITY				Х	
SC-12(2)	CRYPTOGRAPHIC KEY ESTABLISHMENT AND MANAGEMENT   SYMMETRIC KEYS					
SC-12(3)	CRYPTOGRAPHIC KEY ESTABLISHMENT AND MANAGEMENT   ASYMMETRIC KEYS					
SC-13	Cryptographic Protection		Х	Х	Х	
SC-15	Collaborative Computing Devices		Х	Х	Х	
SC-15(1)	COLLABORATIVE COMPUTING DEVICES   PHYSICAL DISCONNECT					
SC-15(3)	COLLABORATIVE COMPUTING DEVICES   DISABLING / REMOVAL IN SECURE WORK AREAS					
SC-15(4)	COLLABORATIVE COMPUTING DEVICES   EXPLICITLY INDICATE CURRENT PARTICIPANTS					
SC-16	Transmission of Security Attributes				S	
SC-16(1)	TRANSMISSION OF SECURITY ATTRIBUTES   INTEGRITY VALIDATION				S	
SC-17	Public Key Infrastructure Certificates			Х	Х	
SC-18	Mobile Code			Х	X	
SC-18(1)	MOBILE CODE   IDENTIFY UNACCEPTABLE CODE / TAKE CORRECTIVE ACTIONS				S	
SC-18(2)	MOBILE CODE   ACQUISITION / DEVELOPMENT / USE				_	
SC-18(3)	MOBILE CODE   PREVENT DOWNLOADING / EXECUTION				S	
SC-18(4)	MOBILE CODE   PREVENT AUTOMATIC EXECUTION				S	
SC-18(5)	MOBILE CODE   ALLOW EXECUTION ONLY IN CONFINED ENVIRONMENTS					
SC-19	Voice Over Internet Protocol			Х	Х	
SC-20	Secure Name /Address Resolution Service (Authoritative Source)		Х	Х	Х	
SC-20(2)	SECURE NAME / ADDRESS RESOLUTION SERVICE (AUTHORITATIVE SOURCE)   DATA ORIGIN / INTEGRITY				S	
SC-21	Secure Name /Address Resolution Service (Recursive or Caching Resolver)		Х	Х	Х	
SC-22	Architecture and Provisioning for Name/Address Resolution Service		x	x	x	
SC-23	Session Authenticity			Х	Х	
SC-23(1)	SESSION AUTHENTICITY   INVALIDATE SESSION IDENTIFIERS AT LOGOUT					
SC-23(3)	SESSION AUTHENTICITY   UNIQUE SESSION IDENTIFIERS WITH RANDOMIZATION					
SC-23(5)	SESSION AUTHENTICITY   ALLOWED CERTIFICATE AUTHORITIES					
SC-24	Fail in Known State				х	
SC-25	Thin Nodes					
SC-26	Honeypots				S	
SC-27	Platform-Independent Applications					
SC-28	Protection of Information at Rest			Х	Х	
SC-28(1)	PROTECTION OF INFORMATION AT REST   CRYPTOGRAPHIC PROTECTION				S	
SC-28(2)	PROTECTION OF INFORMATION AT REST   OFF-LINE STORAGE					
SC-29	Heterogeneity					

CNTL NO.	CONTROL NAME Control Enhancement Name	CON	CONTROL SETS			
	Control Enhancement Name	SET IV	SET III	SET II	SET I	
SC-29(1)	HETEROGENEITY   VIRTUALIZATION TECHNIQUES					
SC-30	Concealment and Misdirection					
SC-30(2)	CONCEALMENT AND MISDIRECTION   RANDOMNESS					
SC-30(3)	CONCEALMENT AND MISDIRECTION   CHANGE PROCESSING / STORAGE LOCATIONS					
SC-30(4)	CONCEALMENT AND MISDIRECTION   MISLEADING INFORMATION					
SC-30(5)	CONCEALMENT AND MISDIRECTION   CONCEALMENT OF SYSTEM COMPONENTS					
SC-31	Covert Channel Analysis					
SC-31(1)	COVERT CHANNEL ANALYSIS   TEST COVERT CHANNELS FOR EXPLOITABILITY					
SC-31(2)	COVERT CHANNEL ANALYSIS   MAXIMUM BANDWIDTH					
SC-31(3)	COVERT CHANNEL ANALYSIS   MEASURE BANDWIDTH IN OPERATIONAL ENVIRONMENTS					
SC-32	Information System Partitioning					
SC-34	Non-Modifiable Executable Programs					
SC-34(1)	NON-MODIFIABLE EXECUTABLE PROGRAMS   NO WRITABLE STORAGE					
SC-34(2)	NON-MODIFIABLE EXECUTABLE PROGRAMS   INTEGRITY PROTECTION / READ-ONLY MEDIA					
SC-34(3)	NON-MODIFIABLE EXECUTABLE PROGRAMS   HARDWARE-BASED PROTECTION					
SC-35	Honeyclients					
SC-36	Distributed Processing and Storage					
SC-36(1)	DISTRIBUTED PROCESSING AND STORAGE   POLLING TECHNIQUES					
SC-37	Out-of-Band Channels					
SC-37(1)	OUT-OF-BAND CHANNELS   ENSURE DELIVERY / TRANSMISSION					
SC-38	Operations Security				S	
SC-39	Process Isolation		Х	Х	Х	
SC-39(1)	PROCESS ISOLATION   HARDWARE SEPARATION					
SC-39(2)	PROCESS ISOLATION   THREAD ISOLATION					
SC-40	Wireless Link Protection					
SC-40(1)	WIRELESS LINK PROTECTION   ELECTROMAGNETIC INTERFERENCE					
SC-40(2)	WIRELESS LINK PROTECTION   REDUCE DETECTION POTENTIAL					
SC-40(3)	WIRELESS LINK PROTECTION   IMITATIVE OR MANIPULATIVE COMMUNICATIONS DECEPTION					
SC-40(4)	WIRELESS LINK PROTECTION   SIGNAL PARAMETER IDENTIFICATION					
SC-41	Port and I/O Device Access				S	
SC-42	Sensor Capability and Data					
SC-42(1)	SENSOR CAPABILITY AND DATA   REPORTING TO AUTHORIZED INDIVIDUALS OR ROLES					
SC-42(2)	SENSOR CAPABILITY AND DATA   AUTHORIZED USE					
SC-42(3)	SENSOR CAPABILITY AND DATA   PROHIBIT USE OF DEVICES					
SC-43	Usage Restrictions					
SC-44	Detonation Chambers			,		

# SYSTEM AND INFORMATION INTEGRITY CONTROLS

CNTL NO.	CONTROL NAME  Control Enhancement Name	C	CONTROL SETS				
	Control Enhancement Name	SET SET SET IV III II		SET			
SI-1	System and Information Integrity Policy and Procedures	х	Х	Х	Х		
SI-2	Flaw Remediation		Х	Х	Х		
SI-2(1)	FLAW REMEDIATION   CENTRAL MANAGEMENT				Х		
SI-2(2)	FLAW REMEDIATION   AUTOMATED FLAW REMEDIATION STATUS			Х	Х		
SI-2(3)	FLAW REMEDIATION   TIME TO REMEDIATE FLAWS / BENCHMARKS FOR CORRECTIVE ACTIONS				S		
SI-2(5)	FLAW REMEDIATION   AUTOMATIC SOFTWARE / FIRMWARE UPDATES						
SI-2(6)	FLAW REMEDIATION   REMOVAL OF PREVIOUS VERSIONS OF SOFTWARE / FIRMWARE						
SI-3	Malicious Code Protection		Х	Х	Х		
SI-3(1)	MALICIOUS CODE PROTECTION   CENTRAL MANAGEMENT			Х	Х		
SI-3(2)	MALICIOUS CODE PROTECTION   AUTOMATIC UPDATES			Х	Х		
SI-3(4)	MALICIOUS CODE PROTECTION   UPDATES ONLY BY PRIVILEGED USERS						
SI-3(6)	MALICIOUS CODE PROTECTION   TESTING / VERIFICATION						
SI-3(7)	MALICIOUS CODE PROTECTION   NONSIGNATURE-BASED DETECTION				S		
SI-3(8)	MALICIOUS CODE PROTECTION   DETECT UNAUTHORIZED COMMANDS				Х		
SI-3(9)	MALICIOUS CODE PROTECTION   AUTHENTICATE REMOTE COMMANDS						
SI-3(10)	MALICIOUS CODE PROTECTION   MALICIOUS CODE ANALYSIS				Х		
SI-4	Information System Monitoring		Х	Х	Х		
SI-4(1)	INFORMATION SYSTEM MONITORING   SYSTEM-WIDE INTRUSION DETECTION SYSTEM				S		
SI-4(2)	INFORMATION SYSTEM MONITORING   AUTOMATED TOOLS FOR REAL-TIME ANALYSIS			Х	Х		
SI-4(3)	INFORMATION SYSTEM MONITORING   AUTOMATED TOOL INTEGRATION						
SI-4(4)	INFORMATION SYSTEM MONITORING   INBOUND AND OUTBOUND COMMUNICATIONS TRAFFIC			Х	Х		
SI-4(5)	INFORMATION SYSTEM MONITORING   SYSTEM-GENERATED ALERTS			Х	Х		
SI-4(7)	INFORMATION SYSTEM MONITORING   AUTOMATED RESPONSE TO SUSPICIOUS EVENTS						
SI-4(9)	INFORMATION SYSTEM MONITORING   TESTING OF MONITORING TOOLS				S		
SI-4(10)	INFORMATION SYSTEM MONITORING   VISIBILITY OF ENCRYPTED COMMUNICATIONS				Х		
SI-4(11)	INFORMATION SYSTEM MONITORING   ANALYZE COMMUNICATIONS TRAFFIC ANOMALIES				Х		
SI-4(12)	INFORMATION SYSTEM MONITORING   AUTOMATED ALERTS				S		
SI-4(13)	INFORMATION SYSTEM MONITORING   ANALYZE TRAFFIC / EVENT PATTERNS				S		
SI-4(14)	INFORMATION SYSTEM MONITORING   WIRELESS INTRUSION DETECTION				S		
SI-4(15)	INFORMATION SYSTEM MONITORING   WIRELESS TO WIRELINE COMMUNICATIONS						
SI-4(16)	INFORMATION SYSTEM MONITORING   CORRELATE MONITORING INFORMATION						
SI-4(17)	INFORMATION SYSTEM MONITORING   INTEGRATED SITUATIONAL AWARENESS				S		
SI-4(18)	INFORMATION SYSTEM MONITORING   ANALYZE TRAFFIC / COVERT EXFILTRATION						
SI-4(19)	INFORMATION SYSTEM MONITORING   INDIVIDUALS POSING GREATER RISK				S		
SI-4(20)	INFORMATION SYSTEM MONITORING   PRIVILEGED USER				Х		
SI-4(21)	INFORMATION SYSTEM MONITORING   PROBATIONARY PERIODS						
SI-4(22)	INFORMATION SYSTEM MONITORING   UNAUTHORIZED NETWORK SERVICES				S		
SI-4(23)	INFORMATION SYSTEM MONITORING   HOST-BASED DEVICES				S		
SI-4(24)	INFORMATION SYSTEM MONITORING   INDICATORS OF COMPROMISE				S		
SI-5	Security Alerts, Advisories, and Directives		Х	Х	Х		
SI-5(1)	SECURITY ALERTS, ADVISORIES, AND DIRECTIVES   AUTOMATED ALERTS AND ADVISORIES				Х		
SI-6	Security Function Verification				Х		
SI-6(2)	SECURITY FUNCTION VERIFICATION   AUTOMATION SUPPORT FOR DISTRIBUTED TESTING						
SI-6(3)	SECURITY FUNCTION VERIFICATION   REPORT VERIFICATION RESULTS				Х		
SI-7	Software, Firmware, and Information Integrity			Х	Х		

CNTL NO.	CONTROL NAME Control Enhancement Name	CONTROL SETS				
	Control Limanosmon Name	SET IV	SET		SET	
SI-7(1)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   INTEGRITY CHECKS			х	х	
SI-7(2)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   AUTOMATED NOTIFICATIONS OF INTEGRITY VIOLATIONS				Х	
SI-7(3)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   CENTRALLY MANAGED INTEGRITY TOOLS					
SI-7(5)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   AUTOMATED RESPONSE TO INTEGRITY VIOLATIONS				Х	
SI-7(6)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   CRYPTOGRAPHIC PROTECTION					
SI-7(7)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   INTEGRATION OF DETECTION AND RESPONSE			х	х	
SI-7(8)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   AUDITING CAPABILITY FOR SIGNIFICANT EVENTS					
SI-7(9)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   VERIFY BOOT PROCESS					
SI-7(10)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   PROTECTION OF BOOT FIRMWARE					
SI-7(11)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   CONFINED ENVIRONMENTS WITH LIMITED PRIVILEGES					
SI-7(12)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   INTEGRITY VERIFICATION				S	
SI-7(13)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   CODE EXECUTION IN PROTECTED ENVIRONMENTS					
SI-7(14)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   BINARY OR MACHINE EXECUTABLE CODE				Х	
SI-7(15)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY   CODE AUTHENTICATION					
SI-7(16)	SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY $\mid$ TIME LIMIT ON PROCESS EXECUTION WITHOUT SUPERVISION					
SI-8	Spam Protection			Х	Х	
SI-8(1)	SPAM PROTECTION   CENTRAL MANAGEMENT			Х	Х	
SI-8(2)	SPAM PROTECTION   AUTOMATIC UPDATES			Х	Х	
SI-8(3)	SPAM PROTECTION   CONTINUOUS LEARNING CAPABILITY					
SI-10	Information Input Validation			Х	Х	
SI-10(1)	INFORMATION INPUT VALIDATION   MANUAL OVERRIDE CAPABILITY					
SI-10(2)	INFORMATION INPUT VALIDATION   REVIEW / RESOLUTION OF ERRORS					
SI-10(3)	INFORMATION INPUT VALIDATION   PREDICTABLE BEHAVIOR				S	
SI-10(4)	INFORMATION INPUT VALIDATION   REVIEW / TIMING INTERACTIONS					
SI-10(5)	INFORMATION INPUT VALIDATION   REVIEW / RESTRICT INPUTS TO TRUSTED SOURCES AND APPROVED FORMATS				S	
SI-11	Error Handling			Х	Х	
SI-12	Information Handling and Retention		Х	Х	Х	
SI-13	Predictable Failure Prevention					
SI-13(1)	PREDICTABLE FAILURE PREVENTION   TRANSFERRING COMPONENT RESPONSIBILITIES					
SI-13(3)	PREDICTABLE FAILURE PREVENTION   MANUAL TRANSFER BETWEEN COMPONENTS					
SI-13(4) SI-13(5)	PREDICTABLE FAILURE PREVENTION   STANDBY COMPONENT INSTALLATION / NOTIFICATION					
	PREDICTABLE FAILURE PREVENTION   FAILOVER CAPABILITY					
<b>SI-14</b> SI-14(1)	Non-Persistence					
SI-14(1)	NON-PERSISTENCE   REFRESH FROM TRUSTED SOURCES					
SI-16	Information Output Filtering  Memory Protection			х	х	
SI-10	Fail-Safe Procedures			^		