

Detailed Activity List



Project: National Currency Printing and Secure Banknote Production Facility Project (NCPBF)

Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A1	1.1.1	Project Charter Finalization	Identify project sponsors and approving authorities	Confirm project sponsor and governance authority responsible for project authorization	Sponsor confirmation	Project Manager
A2	1.1.1	Project Charter Finalization	Conduct project initiation workshops	Facilitate workshops with key stakeholders to define project vision and objectives	Workshop summary	PMO
A3	1.1.1	Project Charter Finalization	Define project objectives and success criteria	Establish SMART objectives aligned with national currency security requirements	Draft objectives document	Project Manager
A4	1.1.1	Project Charter Finalization	Define high-level scope and project boundaries	Identify the main deliverables and major exclusions	High-level scope statement	Project Manager
A5	1.1.1	Project Charter Finalization	Identify key stakeholders	Identify stakeholders across government, security, and operational institutions	Stakeholder identification list	PMO
A6	1.1.1	Project Charter Finalization	Define project governance structure	Define steering committee, governance boards, and reporting relationships	Governance structure document	Governance Team
A7	1.1.1	Project Charter Finalization	Draft the project charter document	Compile objectives, scope, governance structure, and high-level milestones	Draft charter	Project Manager
A8	1.1.1	Project Charter Finalization	Conduct internal charter review	Review draft charter with technical and governance teams	Review comments	PMO
A9	1.1.1	Project Charter Finalization	Conduct stakeholder validation workshop	Present charter to stakeholders for validation and feedback	Stakeholder validation record	Project Manager
A10	1.1.1	Project Charter Finalization	Finalize project charter	Update charter based on feedback and finalize document	Final charter document	PMO
A11	1.1.1	Project Charter Finalization	Obtain sponsor approval and signature	Secure formal approval from project sponsor	Signed charter	Sponsor
A12	1.1.1	Project Charter Finalization	Archive charter under configuration control	Store final charter in project document repository	Archived charter	Document Control
A13	1.1.2	Governance Framework Implementation	Establish project steering committee	Form the steering committee responsible for project oversight	Steering committee charter	Sponsor
A14	1.1.2	Governance Framework Implementation	Define decision authority matrix	Establish authority levels for decision-making	Authority matrix	PMO
A15	1.1.2	Governance Framework Implementation	Develop RACI responsibility matrix	Define responsibilities across project roles	RACI matrix	PMO
A16	1.1.2	Governance Framework Implementation	Define governance reporting structure	Establish reporting hierarchy and escalation procedures	Reporting framework	Governance Team

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A17	1.1.2	Governance Framework Implementation	Establish project management office (PMO)	Create PMO structure and responsibilities	PMO organizational structure	Governance Team
A18	1.1.2	Governance Framework Implementation	Develop governance policies and procedures	Define governance rules and decision protocols	Governance procedures	PMO
A19	1.1.2	Governance Framework Implementation	Approve governance calendar	Schedule governance meetings and reviews	Governance calendar	Steering Committee
A20	1.1.2	Governance Framework Implementation	Implement governance monitoring tools	Deploy tools for reporting and monitoring project performance	Governance dashboards	PMO
A21	1.1.3	Integrated Schedule Development	Review approved WBS structure	Validate WBS hierarchy and deliverables	WBS validation report	Planning Team
A22	1.1.3	Integrated Schedule Development	Identify detailed project activities	Break down work packages into schedule activities	Activity list	Planning Team
A23	1.1.3	Integrated Schedule Development	Define activity sequencing	Determine logical dependencies between activities	Network logic diagram	Scheduling Engineer
A24	1.1.3	Integrated Schedule Development	Estimate activity durations	Estimate time required for each activity	Duration estimates	Planning Team
A25	1.1.3	Integrated Schedule Development	Develop integrated master schedule	Create project schedule including all work streams	Integrated schedule	Scheduling Engineer
A26	1.1.3	Integrated Schedule Development	Identify critical path	Determine the longest sequence of dependent activities	Critical path analysis	Scheduling Engineer
A27	1.1.3	Integrated Schedule Development	Integrate stage-gate milestones	Include governance stage-gates into the schedule	Updated schedule	Planning Team
A28	1.1.3	Integrated Schedule Development	Review schedule with project team	Validate schedule assumptions and dependencies	Review feedback	PMO
A29	1.1.3	Integrated Schedule Development	Baseline project schedule	Obtain formal approval of the schedule baseline	Approved schedule baseline	Steering Committee
A30	1.1.3	Integrated Schedule Development	Publish controlled schedule	Distribute approved schedule to stakeholders	Published schedule	PMO
A31	1.1.4	Cost Baseline Development	Develop cost breakdown structure	Align CBS with approved WBS	Cost breakdown structure	Finance Team
A32	1.1.4	Cost Baseline Development	Estimate costs for work packages	Estimate cost of each work package	Cost estimates	Finance Team

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A33	1.1.4	Cost Baseline Development	Identify contingency requirements	Determine contingency reserves for risks	Contingency plan	Risk Team
A34	1.1.4	Cost Baseline Development	Define cost control thresholds	Establish cost variance thresholds	Cost control rules	Finance Team
A35	1.1.4	Cost Baseline Development	Develop project cost baseline	Consolidate costs into project baseline	Cost baseline	Finance Team
A36	1.1.4	Cost Baseline Development	Obtain financial approval	Submit cost baseline for approval	Approved cost baseline	Steering Committee
A37	1.1.5	Risk & Change Control	Develop risk management framework	Establish project risk management procedures	Risk management plan	Risk Manager
A38	1.1.5	Risk & Change Control	Create risk register	Identify and record project risks	Risk register	Risk Manager
A39	1.1.5	Risk & Change Control	Develop issue management process	Establish issue identification and resolution process	Issue log	PMO
A40	1.1.5	Risk & Change Control	Establish change control board	Create governance body for change approval	CCB charter	Governance Team
A41	1.1.5	Risk & Change Control	Develop change request templates	Define templates for change submission	Change request template	PMO
A42	1.1.5	Risk & Change Control	Conduct monthly risk review meetings	Evaluate risk status and mitigation actions	Risk review reports	Risk Manager
A43	1.1.6	Stage-Gate Reviews	Define stage-gate review criteria	Establish approval criteria for each phase	Stage-gate criteria	Governance Board
A44	1.1.6	Stage-Gate Reviews	Prepare stage-gate documentation	Compile deliverables for review	Gate review package	PMO
A45	1.1.6	Stage-Gate Reviews	Conduct governance review meeting	Review project readiness	Review minutes	Steering Committee
A46	1.1.6	Stage-Gate Reviews	Approve or reject stage transition	Authorize transition to next phase	Approval decision	Steering Committee
A47	1.1.7	Security Governance	Establish security governance board	Form security oversight authority	Security governance board	Security Authority
A48	1.1.7	Security Governance	Define security classification levels	Establish classification rules for documents and systems	Classification framework	Security Authority
A49	1.1.7	Security Governance	Approve security architecture design	Validate security infrastructure design	Approved security architecture	Security Board
A50	1.1.7	Security Governance	Conduct security compliance reviews	Monitor security implementation	Security compliance report	Security Team
A51	1.1.8	Benefits Tracking	Identify expected project benefits	Define financial and strategic benefits	Benefits register	PMO

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A52	1.1.8	Benefits Tracking	Define benefit KPIs	Establish measurable indicators	KPI framework	PMO
A53	1.1.8	Benefits Tracking	Monitor benefits realization	Track performance against KPIs	Benefits report	PMO
A54	1.1.9	Configuration Control	Establish document repository	Implement document management system	Document repository	IT Team
A55	1.1.9	Configuration Control	Define document classification rules	Establish document security levels	Document classification guide	Security Team
A56	1.1.9	Configuration Control	Implement version control procedures	Manage document revisions	Version control system	Document Control
A57	1.1.9	Configuration Control	Control document distribution	Manage document access permissions	Access log	PMO
A58	1.2.1	Secure Site Preparation	Conduct site boundary survey	Survey and confirm exact project boundaries	Survey report	Civil Engineering Team
A59	1.2.1	Secure Site Preparation	Obtain land clearance approvals	Secure permits and approvals for site preparation	Land clearance permits	Legal / Government Liaison
A60	1.2.1	Secure Site Preparation	Perform geotechnical soil investigation	Conduct soil sampling and structural analysis	Geotechnical report	Geotechnical Engineer
A61	1.2.1	Secure Site Preparation	Analyze soil bearing capacity	Validate soil strength for structural foundations	Soil analysis report	Structural Engineer
A62	1.2.1	Secure Site Preparation	Perform environmental impact review	Evaluate environmental compliance requirements	Environmental assessment	Environmental Specialist
A63	1.2.1	Secure Site Preparation	Clear vegetation and obstacles	Remove trees, debris, and unwanted structures	Cleared site	Construction Contractor
A64	1.2.1	Secure Site Preparation	Conduct initial land grading	Prepare site surface for construction works	Grading completion report	Civil Contractor
A65	1.2.1	Secure Site Preparation	Perform excavation activities	Excavate foundation areas and service trenches	Excavation completion	Civil Contractor
A66	1.2.1	Secure Site Preparation	Install temporary drainage systems	Prevent flooding during construction	Temporary drainage system	Civil Engineering Team
A67	1.2.1	Secure Site Preparation	Install temporary security fencing	Secure the construction site perimeter	Temporary fence installation	Security Team
A68	1.2.1	Secure Site Preparation	Establish guard posts	Set up security checkpoints and guard shelters	Guard stations operational	Security Contractor
A69	1.2.1	Secure Site Preparation	Implement controlled site entry	Establish access control for construction workers	Access control system	Security Team

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A70	1.2.1	Secure Site Preparation	Conduct HSE kickoff meeting	Introduce safety protocols and compliance standards	HSE kickoff report	HSE Manager
A71	1.2.2	Architectural & Engineering Design	Conduct user needs assessment	Identify operational requirements of currency facility	User requirements report	Design Team
A72	1.2.2	Architectural & Engineering Design	Develop conceptual facility design	Prepare initial layout and architectural concept	Concept design package	Architect
A73	1.2.2	Architectural & Engineering Design	Define security zoning layout	Establish high-security and restricted zones	Security zoning plan	Security Architect
A74	1.2.2	Architectural & Engineering Design	Prepare architectural design drawings	Develop architectural blueprints	Architectural drawings	Architect
A75	1.2.2	Architectural & Engineering Design	Develop structural engineering design	Design building structural components	Structural design report	Structural Engineer
A76	1.2.2	Architectural & Engineering Design	Develop mechanical engineering design	Design HVAC and ventilation systems	Mechanical design documents	Mechanical Engineer
A77	1.2.2	Architectural & Engineering Design	Develop electrical system design	Design electrical power distribution systems	Electrical design drawings	Electrical Engineer
A78	1.2.2	Architectural & Engineering Design	Design vault infrastructure	Develop vault structural and security design	Vault design package	Security Engineer
A79	1.2.2	Architectural & Engineering Design	Design fire and life safety systems	Develop fire protection and emergency systems	Fire safety design	Safety Engineer
A80	1.2.2	Architectural & Engineering Design	Conduct independent design validation	Independent verification of design compliance	Design validation report	Independent Consultant
A81	1.2.2	Architectural & Engineering Design	Conduct security architecture review	Validate facility security features	Security design review	Security Authority
A82	1.2.2	Architectural & Engineering Design	Obtain design baseline approval	Approve final engineering designs	Approved design baseline	Steering Committee
A83	1.2.3	Security Perimeter Construction	Construct perimeter wall foundation	Build base structures for security perimeter	Wall foundation completed	Civil Contractor
A84	1.2.3	Security Perimeter Construction	Install perimeter fencing systems	Install reinforced security fencing	Installed fencing	Security Contractor
A85	1.2.3	Security Perimeter Construction	Install anti-climb security features	Deploy anti-climb barriers	Anti-climb system installed	Security Contractor

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A86	1.2.3	Security Perimeter Construction	Install perimeter lighting systems	Install high-security lighting infrastructure	Security lighting system	Electrical Contractor
A87	1.2.3	Security Perimeter Construction	Construct guard towers	Build security observation towers	Guard towers completed	Construction Contractor
A88	1.2.3	Security Perimeter Construction	Construct gatehouses	Establish secured entry buildings	Gatehouses constructed	Civil Contractor
A89	1.2.3	Security Perimeter Construction	Install IDS conduit infrastructure	Prepare cabling infrastructure for intrusion detection	IDS infrastructure	IT Security Team
A90	1.2.3	Security Perimeter Construction	Conduct blind spot testing	Evaluate security coverage gaps	Security coverage report	Security Team
A91	1.2.3	Security Perimeter Construction	Conduct perimeter security inspection	Validate perimeter security installation	Security inspection report	Security Authority
A92	1.2.4	Structural Construction	Construct building foundations	Install reinforced concrete foundations	Foundation structure	Civil Contractor
A93	1.2.4	Structural Construction	Build reinforced structural framework	Construct building superstructure	Structural framework	Structural Contractor
A94	1.2.4	Structural Construction	Construct production halls	Build main printing production areas	Production hall structure	Construction Contractor
A95	1.2.4	Structural Construction	Install internal partitions	Construct internal operational areas	Partition installation	Civil Contractor
A96	1.2.4	Structural Construction	Construct machine foundations	Build reinforced platforms for printing machines	Machine foundation structures	Structural Contractor
A97	1.2.4	Structural Construction	Install vibration isolation systems	Reduce machine vibration impacts	Isolation systems installed	Engineering Contractor
A98	1.2.4	Structural Construction	Conduct structural QA inspections	Verify structural integrity	QA inspection report	Quality Assurance Team
A99	1.2.4	Structural Construction	Verify construction material certifications	Ensure compliance with design specifications	Material certification records	QA Team
A100	1.2.4	Structural Construction	Conduct structural stage gate review	Verify readiness for next construction stage	Stage-gate approval	Steering Committee
A101	1.2.6	Vault Construction	Construct reinforced vault structures	Build secure vault chambers	Vault structures completed	Security Contractor
A102	1.2.6	Vault Construction	Install certified vault locking systems	Install high-security locking mechanisms	Vault locks installed	Security Contractor

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A103	1.2.6	Vault Construction	Implement environmental stabilization	Ensure vault climate stability	Environmental system installed	Facility Engineering
A104	1.2.6	Vault Construction	Install CCTV and IDS interfaces	Integrate surveillance systems into vault	Security system integration	Security Team
A105	1.2.6	Vault Construction	Conduct penetration resistance testing	Test vault security strength	Penetration test report	Security Authority
A106	1.2.6	Vault Construction	Obtain security certification	Certify vault security compliance	Security certification	Regulatory Authority
A107	1.2.8	Utilities Installation	Install main electrical distribution system	Deploy primary electrical infrastructure	Electrical system installed	Electrical Contractor
A108	1.2.8	Utilities Installation	Install backup generators	Deploy emergency power generators	Generator system installed	Electrical Contractor
A109	1.2.8	Utilities Installation	Install UPS systems	Provide uninterrupted power supply	UPS system installed	Electrical Engineer
A110	1.2.8	Utilities Installation	Install water supply systems	Install facility water infrastructure	Water system operational	Plumbing Contractor
A111	1.2.8	Utilities Installation	Install fire suppression systems	Install fire safety infrastructure	Fire suppression system	Safety Engineer
A112	1.2.8	Utilities Installation	Conduct load testing for utilities	Validate system capacity	Load test report	Engineering Team
A113	1.2.8	Utilities Installation	Conduct failover simulations	Verify backup power switching	Failover test report	Electrical Engineer
A114	1.2.8	Utilities Installation	Obtain safety certification	Approve utility safety compliance	Safety certification	Safety Authority
A115	1.3.1	Procurement of Printing Presses	Define technical specifications for printing presses	Establish detailed technical, production, and security requirements for banknote printing presses	Technical specification document	Procurement & Engineering Team
A116	1.3.1	Procurement of Printing Presses	Conduct market analysis of potential suppliers	Identify global suppliers capable of delivering secure banknote printing technology	Vendor market analysis report	Procurement Team
A117	1.3.1	Procurement of Printing Presses	Prepare vendor prequalification criteria	Establish technical, financial, and security evaluation criteria	Vendor prequalification document	Procurement Committee
A118	1.3.1	Procurement of Printing Presses	Issue prequalification request	Invite qualified vendors to submit capability documentation	Vendor prequalification submissions	Procurement Team
A119	1.3.1	Procurement of Printing Presses	Evaluate vendor qualifications	Assess vendor capability, experience, and compliance	Vendor shortlist	Evaluation Committee
A120	1.3.1	Procurement of Printing Presses	Prepare procurement tender documents	Develop detailed request for proposal (RFP) package	Tender documentation	Procurement Team

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A121	1.3.1	Procurement of Printing Presses	Publish international tender	Invite bids from qualified suppliers	Published tender notice	Procurement Team
A122	1.3.1	Procurement of Printing Presses	Conduct bidder conference	Clarify tender requirements and technical specifications	Bidder conference minutes	Procurement Team
A123	1.3.1	Procurement of Printing Presses	Receive vendor proposals	Collect vendor technical and commercial proposals	Vendor proposals	Procurement Team
A124	1.3.1	Procurement of Printing Presses	Perform technical proposal evaluation	Evaluate compliance with engineering specifications	Technical evaluation report	Technical Committee
A125	1.3.1	Procurement of Printing Presses	Perform commercial proposal evaluation	Evaluate cost and contractual conditions	Commercial evaluation report	Procurement Committee
A126	1.3.1	Procurement of Printing Presses	Conduct security and compliance review	Assess vendor compliance with security requirements	Security review report	Security Authority
A127	1.3.1	Procurement of Printing Presses	Finalize vendor selection	Select the most qualified supplier	Vendor selection decision	Steering Committee
A128	1.3.1	Procurement of Printing Presses	Negotiate contract terms	Finalize pricing, delivery, training, and warranty terms	Negotiated contract	Procurement Team
A129	1.3.1	Procurement of Printing Presses	Obtain governance approval for contract	Secure approval from governance board	Approved contract	Steering Committee
A130	1.3.1	Procurement of Printing Presses	Sign procurement contract	Execute formal contract with vendor	Signed contract	Project Sponsor
A131	1.3.1	Procurement of Printing Presses	Monitor manufacturing process	Supervise equipment manufacturing at vendor facility	Manufacturing oversight reports	Engineering Team
A132	1.3.1	Procurement of Printing Presses	Verify manufacturing progress milestones	Monitor vendor progress against schedule	Manufacturing milestone report	Vendor Oversight Team
A133	1.3.1	Procurement of Printing Presses	Define spare parts and maintenance requirements	Establish spare parts inventory and maintenance plans	Spare parts plan	Engineering Team
A134	1.3.1	Procurement of Printing Presses	Define training program for operators	Develop operator training program with vendor	Training plan	Operations Team
A135	1.3.2	Finishing Equipment Procurement	Define technical specifications for finishing equipment	Specify requirements for cutting, numbering, bundling equipment	Technical specification document	Engineering Team
A136	1.3.2	Finishing Equipment Procurement	Conduct vendor market research	Identify global suppliers for finishing equipment	Market research report	Procurement Team

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A137	1.3.2	Finishing Equipment Procurement	Issue tender for finishing equipment	Publish procurement tender	Tender notice	Procurement Team
A138	1.3.2	Finishing Equipment Procurement	Evaluate vendor proposals	Assess vendor compliance with specifications	Evaluation report	Technical Committee
A139	1.3.2	Finishing Equipment Procurement	Conduct interoperability verification	Ensure compatibility with printing presses	Compatibility report	Engineering Team
A140	1.3.2	Finishing Equipment Procurement	Award procurement contract	Select vendor and execute contract	Signed vendor contract	Procurement Authority
A141	1.3.2	Finishing Equipment Procurement	Plan factory acceptance testing (FAT)	Define FAT testing procedures	FAT test plan	Engineering Team
A142	1.3.2	Finishing Equipment Procurement	Confirm delivery readiness	Verify equipment readiness for shipment	Delivery readiness report	Vendor Oversight Team
A143	1.3.3	Secure Logistics	Develop secure transportation plan	Establish secure transportation procedures	Logistics plan	Security Logistics Team
A144	1.3.3	Secure Logistics	Obtain shipment insurance	Secure insurance coverage for equipment transport	Insurance certificate	Procurement Team
A145	1.3.3	Secure Logistics	Coordinate transport escorts	Arrange security escorts for transport	Escort deployment plan	Security Authority
A146	1.3.3	Secure Logistics	Implement chain-of-custody tracking	Track equipment movement during transit	Chain-of-custody records	Logistics Team
A147	1.3.3	Secure Logistics	Manage customs clearance	Process customs documentation if required	Customs clearance documents	Logistics Team
A148	1.3.3	Secure Logistics	Conduct secure unloading operations	Safely unload equipment at facility	Unloading completion report	Installation Team
A149	1.3.3	Secure Logistics	Transfer equipment to secure storage	Store equipment under controlled conditions	Storage records	Security Team
A150	1.3.3	Secure Logistics	Conduct delivery inspection	Verify equipment condition upon arrival	Delivery inspection report	Engineering Team
A151	1.3.4	Machinery Installation	Verify site readiness for installation	Confirm facility infrastructure readiness	Site readiness report	Engineering Team
A152	1.3.4	Machinery Installation	Prepare installation equipment and tools	Ensure required installation equipment available	Installation readiness checklist	Installation Team
A153	1.3.4	Machinery Installation	Perform machinery rigging operations	Move heavy machinery into position	Rigging completion report	Mechanical Contractor
A154	1.3.4	Machinery Installation	Position machinery on foundations	Place machinery on prepared platforms	Machinery placement report	Installation Team

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A155	1.3.4	Machinery Installation	Anchor machinery to foundation	Secure equipment to foundation mounts	Anchoring verification	Mechanical Engineer
A156	1.3.4	Machinery Installation	Perform mechanical alignment	Align equipment components for operation	Alignment verification report	Engineering Team
A157	1.3.4	Machinery Installation	Conduct vibration calibration	Ensure vibration control compliance	Calibration report	Engineering Team
A158	1.3.4	Machinery Installation	Connect utility systems	Connect electrical, water, and air systems	Utility connection verification	Engineering Team
A159	1.3.4	Machinery Installation	Conduct installation QA inspection	Verify installation compliance	QA inspection report	Quality Assurance Team
A160	1.3.5	System Integration	Integrate machinery with facility power systems	Connect machines to electrical infrastructure	Power integration report	Electrical Engineer
A161	1.3.5	System Integration	Integrate HVAC environmental systems	Connect machines to environmental controls	HVAC integration report	Mechanical Engineer
A162	1.3.5	System Integration	Configure OT/IT system interfaces	Connect machines with production IT systems	System interface configuration	IT Engineer
A163	1.3.5	System Integration	Establish secure data communication channels	Implement secure data exchange between systems	Secure communication setup	Cybersecurity Team
A164	1.3.5	System Integration	Conduct interoperability testing	Verify interaction between all systems	Interoperability test report	Systems Integration Team
A165	1.3.5	System Integration	Conduct integrated system testing	Validate operational readiness	System testing report	Engineering Team
A166	1.3.7	Calibration & Validation	Perform equipment calibration	Adjust equipment settings to meet specifications	Calibration report	Engineering Team
A167	1.3.7	Calibration & Validation	Conduct initial machine trial runs	Operate equipment under controlled conditions	Trial run report	Production Team
A168	1.3.7	Calibration & Validation	Conduct precision measurement tests	Verify printing precision accuracy	Precision test results	Quality Team
A169	1.3.7	Calibration & Validation	Measure defect rates and throughput	Evaluate production performance	Performance measurement report	Operations Team
A170	1.3.7	Calibration & Validation	Prepare technical validation report	Document validation findings	Technical validation report	Engineering Team
A171	1.3.7	Calibration & Validation	Obtain commissioning readiness approval	Confirm readiness for operational commissioning	Commissioning approval	Steering Committee

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A172	1.4.1	Production Management System Implementation	Define production system architecture	Design the architecture for the production management system controlling banknote operations	Architecture design document	IT Architecture Team
A173	1.4.1	Production Management System Implementation	Identify functional system requirements	Define system requirements for production monitoring and control	System requirements specification	IT Engineering Team
A174	1.4.1	Production Management System Implementation	Configure Production Management System (PMS)	Install and configure the PMS platform	PMS configuration report	IT Implementation Team
A175	1.4.1	Production Management System Implementation	Integrate PMS with printing machines	Establish communication between PMS and printing equipment	Integration configuration	Systems Integration Team
A176	1.4.1	Production Management System Implementation	Implement immutable logging system	Enable tamper-proof production activity logs	Secure logging system	Cybersecurity Team
A177	1.4.1	Production Management System Implementation	Configure role-based access control mapping	Assign system access roles and permissions	RBAC configuration	IT Security Team
A178	1.4.1	Production Management System Implementation	Perform system integration testing	Test interactions between PMS and production equipment	Integration testing report	QA Team
A179	1.4.1	Production Management System Implementation	Conduct user acceptance testing (UAT)	Validate system functionality with operational users	UAT report	Operations Team
A180	1.4.1	Production Management System Implementation	Obtain governance approval for system deployment	Secure approval for production system go-live	System approval documentation	Steering Committee
A181	1.4.2	Inventory Tracking System Deployment	Define material taxonomy	Establish classification structure for raw materials and banknotes	Material taxonomy document	Operations Team
A182	1.4.2	Inventory Tracking System Deployment	Configure inventory tracking workflows	Define inventory lifecycle processes	Workflow configuration	IT Systems Team
A183	1.4.2	Inventory Tracking System Deployment	Define authorization rules for material movement	Establish security rules for inventory transactions	Authorization framework	Security Team
A184	1.4.2	Inventory Tracking System Deployment	Integrate inventory system with access control	Connect inventory system with security access control	System integration report	IT Security Team
A185	1.4.2	Inventory Tracking System Deployment	Integrate inventory system with surveillance systems	Link inventory movement to video surveillance monitoring	Integration report	Security Systems Team
A186	1.4.2	Inventory Tracking System Deployment	Configure anomaly detection mechanisms	Detect irregular inventory movement	Anomaly detection rules	Cybersecurity Team
A187	1.4.2	Inventory Tracking System Deployment	Conduct inventory reconciliation testing	Validate material traceability	Reconciliation report	Operations Team

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A188	1.4.2	Inventory Tracking System Deployment	Conduct system acceptance testing	Verify operational functionality	Acceptance test report	QA Team
A189	1.4.3	Role-Based Access Control System	Define system access roles	Identify system user roles and access levels	Role definition document	IT Security Team
A190	1.4.3	Role-Based Access Control System	Map privileges to operational roles	Assign access privileges based on job responsibilities	Privilege mapping matrix	Security Team
A191	1.4.3	Role-Based Access Control System	Implement multi-factor authentication (MFA)	Deploy MFA security mechanisms	MFA system deployment	Cybersecurity Team
A192	1.4.3	Role-Based Access Control System	Integrate RBAC with biometric authentication	Link access control with biometric verification	Biometric access integration	Security Systems Team
A193	1.4.3	Role-Based Access Control System	Conduct unauthorized access testing	Validate system protection against unauthorized access	Security test report	Cybersecurity Team
A194	1.4.3	Role-Based Access Control System	Conduct periodic access review setup	Establish periodic access audits	Access review policy	Security Governance Team
A195	1.4.4	Surveillance & Monitoring Platform	Design central monitoring architecture	Define surveillance and monitoring system architecture	Monitoring architecture design	Security Architecture Team
A196	1.4.4	Surveillance & Monitoring Platform	Deploy central monitoring platform	Install monitoring infrastructure	Monitoring platform installed	IT Security Team
A197	1.4.4	Surveillance & Monitoring Platform	Configure secure data storage	Establish secure storage for monitoring data	Storage configuration report	IT Infrastructure Team
A198	1.4.4	Surveillance & Monitoring Platform	Define log retention policies	Establish policies for log retention and archival	Log retention policy	Security Governance Team
A199	1.4.4	Surveillance & Monitoring Platform	Configure alert rules and triggers	Define system alerts for security incidents	Alert rule configuration	Cybersecurity Team
A200	1.4.4	Surveillance & Monitoring Platform	Establish SOC monitoring procedures	Define procedures for security monitoring operations	SOC operations guide	Security Operations Center
A201	1.4.4	Surveillance & Monitoring Platform	Test monitoring feeds and alert systems	Validate alert and monitoring functionality	Monitoring test report	Security Operations Team
A202	1.4.4	Surveillance & Monitoring Platform	Obtain monitoring system approval	Approve monitoring system readiness	Governance approval	Security Board
A203	1.4.5	Cybersecurity Architecture Deployment	Install network firewalls	Deploy perimeter and internal firewall systems	Firewall deployment report	Cybersecurity Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A204	1.4.5	Cybersecurity Architecture Deployment	Deploy intrusion detection systems (IDS)	Install IDS infrastructure	IDS deployment report	Security Engineering Team
A205	1.4.5	Cybersecurity Architecture Deployment	Deploy intrusion prevention systems (IPS)	Install IPS protection mechanisms	IPS system deployment	Security Team
A206	1.4.5	Cybersecurity Architecture Deployment	Implement endpoint protection systems	Deploy endpoint security software	Endpoint protection deployment	IT Security Team
A207	1.4.5	Cybersecurity Architecture Deployment	Configure encryption protocols	Enable encryption for data communications	Encryption configuration report	Cybersecurity Team
A208	1.4.5	Cybersecurity Architecture Deployment	Implement centralized logging infrastructure	Consolidate security event logs	Logging infrastructure	IT Operations Team
A209	1.4.5	Cybersecurity Architecture Deployment	Integrate incident response procedures	Connect security alerts to incident response protocols	Incident response framework	Security Operations Center
A210	1.4.5	Cybersecurity Architecture Deployment	Validate cybersecurity controls	Verify effectiveness of security architecture	Cybersecurity validation report	Security Audit Team
A211	1.4.6	Network Segmentation	Define OT and IT network separation	Establish architecture separating operational and IT networks	Network architecture design	IT Architecture Team
A212	1.4.6	Network Segmentation	Configure VLAN network segmentation	Implement segmented network zones	VLAN configuration	Network Engineering Team
A213	1.4.6	Network Segmentation	Install secure gateway devices	Deploy network gateway security controls	Gateway installation report	Network Security Team
A214	1.4.6	Network Segmentation	Restrict external network access	Implement external connection restrictions	Access control configuration	Cybersecurity Team
A215	1.4.6	Network Segmentation	Monitor lateral network movement	Detect unauthorized lateral movement attempts	Network monitoring logs	SOC Team
A216	1.4.6	Network Segmentation	Verify network segmentation effectiveness	Conduct segmentation testing	Network security test report	Cybersecurity Team
A217	1.4.7	Data Protection Systems	Implement encryption at rest	Encrypt stored data systems	Encryption implementation report	IT Security Team
A218	1.4.7	Data Protection Systems	Implement encryption in transit	Secure network data transmission	Secure communication configuration	Network Security Team
A219	1.4.7	Data Protection Systems	Deploy backup systems	Install automated data backup infrastructure	Backup system deployment	IT Operations Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A220	1.4.7	Data Protection Systems	Configure disaster recovery environment	Establish DR recovery environment	DR infrastructure report	IT Infrastructure Team
A221	1.4.7	Data Protection Systems	Define data retention policies	Establish long-term data retention rules	Retention policy	Security Governance Team
A222	1.4.7	Data Protection Systems	Conduct recovery testing	Test restoration procedures	Recovery test report	IT Operations Team
A223	1.4.7	Data Protection Systems	Conduct disaster recovery simulation	Simulate system failure recovery	DR simulation report	IT Disaster Recovery Team
A224	1.4.7	Data Protection Systems	Approve disaster recovery readiness	Confirm system recoverability	DR readiness approval	Governance Board
A225	1.4.8	Penetration Testing	Engage independent cybersecurity testing firm	Contract certified security testing organization	Vendor contract	Procurement Team
A226	1.4.8	Penetration Testing	Conduct vulnerability scanning	Identify system vulnerabilities	Vulnerability scan report	Cybersecurity Firm
A227	1.4.8	Penetration Testing	Perform penetration testing	Simulate cyber attacks	Penetration test report	Cybersecurity Firm
A228	1.4.8	Penetration Testing	Document remediation actions	Record required security improvements	Remediation log	Cybersecurity Team
A229	1.4.8	Penetration Testing	Implement security patches	Apply vulnerability patches	Patch implementation report	IT Security Team
A230	1.4.8	Penetration Testing	Conduct retesting of vulnerabilities	Validate security fixes	Retest report	Cybersecurity Firm
A231	1.4.8	Penetration Testing	Present results to security board	Review cybersecurity status	Security review report	Security Board
A232	1.4.8	Penetration Testing	Obtain stage-gate security approval	Approve readiness for operational transition	Security approval	Steering Committee
A233	1.5.1	Multi-Layer Access Control Installation	Define facility access control architecture	Design the multi-layer access control framework from perimeter to vault areas	Access control architecture document	Security Architecture Team
A234	1.5.1	Multi-Layer Access Control Installation	Define access control security zones	Establish access levels for perimeter, restricted zones, and vault areas	Security zoning plan	Security Authority
A235	1.5.1	Multi-Layer Access Control Installation	Prepare access control technical specifications	Define specifications for readers, turnstiles, and control panels	Technical specification document	Security Engineering Team
A236	1.5.1	Multi-Layer Access Control Installation	Procure access control hardware	Acquire readers, controllers, turnstiles, and security doors	Procurement delivery records	Procurement Team
A237	1.5.1	Multi-Layer Access Control Installation	Install access control panels and controllers	Install central access control control units	Installation report	Security Contractor
A238	1.5.1	Multi-Layer Access Control Installation	Install card readers and biometric terminals	Install authentication devices at secure entry points	Installed authentication devices	Security Systems Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A239	1.5.1	Multi-Layer Access Control Installation	Install secure doors and turnstiles	Deploy controlled access entry points	Installed doors and turnstiles	Security Contractor
A240	1.5.1	Multi-Layer Access Control Installation	Configure central logging system	Enable centralized logging for all access activities	Logging configuration report	IT Security Team
A241	1.5.1	Multi-Layer Access Control Installation	Integrate access control with CCTV and IDS	Link access system with surveillance and intrusion detection systems	Integration report	Security Integration Team
A242	1.5.1	Multi-Layer Access Control Installation	Simulate unauthorized access attempts	Conduct penetration attempts to verify access controls	Access control security test report	Security Audit Team
A243	1.5.1	Multi-Layer Access Control Installation	Obtain security system approval	Verify and approve operational readiness	Security approval certificate	Security Authority
A244	1.5.2	Biometric System Deployment	Define biometric authentication requirements	Establish biometric verification standards	Biometric specification document	Security Architecture Team
A245	1.5.2	Biometric System Deployment	Develop biometric enrollment procedures	Establish user enrollment protocols	Enrollment procedures document	Security Operations Team
A246	1.5.2	Biometric System Deployment	Install biometric authentication devices	Deploy biometric readers in high-security areas	Device installation report	Security Contractor
A247	1.5.2	Biometric System Deployment	Configure encrypted biometric storage	Secure storage of biometric data	Secure database configuration	IT Security Team
A248	1.5.2	Biometric System Deployment	Integrate biometric system with RBAC framework	Connect biometric authentication to role-based access system	Integration report	IT Security Team
A249	1.5.2	Biometric System Deployment	Conduct biometric accuracy testing	Verify accuracy of authentication mechanisms	Accuracy testing report	Security Engineering Team
A250	1.5.2	Biometric System Deployment	Perform biometric system failover testing	Validate backup authentication procedures	Failover test report	IT Security Team
A251	1.5.2	Biometric System Deployment	Obtain biometric certification approval	Approve biometric system for operational use	Certification approval	Security Authority
A252	1.5.3	CCTV & Surveillance Installation	Develop camera coverage plan	Identify camera locations across facility	Camera layout plan	Security Engineering Team
A253	1.5.3	CCTV & Surveillance Installation	Install surveillance cameras	Deploy high-resolution cameras	Camera installation report	Security Contractor
A254	1.5.3	CCTV & Surveillance Installation	Install network video recorders (NVRs)	Deploy video recording systems	NVR installation report	IT Infrastructure Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A255	1.5.3	CCTV & Surveillance Installation	Configure secure video transmission channels	Encrypt video data transmission	Secure video transmission report	Cybersecurity Team
A256	1.5.3	CCTV & Surveillance Installation	Define video retention policies	Establish storage duration policies	Retention policy document	Security Governance Team
A257	1.5.3	CCTV & Surveillance Installation	Conduct blind spot elimination testing	Identify and eliminate surveillance gaps	Surveillance coverage report	Security Operations Team
A258	1.5.3	CCTV & Surveillance Installation	Validate surveillance coverage	Confirm full facility coverage	Coverage validation report	Security Audit Team
A259	1.5.3	CCTV & Surveillance Installation	Approve surveillance system	Final approval for surveillance operations	System approval document	Security Authority
A260	1.5.4	Alarm & Intrusion Detection Systems	Install intrusion detection sensors	Deploy motion and perimeter sensors	Sensor installation report	Security Contractor
A261	1.5.4	Alarm & Intrusion Detection Systems	Install alarm control panels	Deploy alarm system infrastructure	Alarm panel installation	Security Engineering Team
A262	1.5.4	Alarm & Intrusion Detection Systems	Configure intrusion alert rules	Establish automated security alerts	Alert configuration report	Security Systems Team
A263	1.5.4	Alarm & Intrusion Detection Systems	Integrate alarms with monitoring systems	Connect alarms to monitoring platform	Integration report	Security Integration Team
A264	1.5.4	Alarm & Intrusion Detection Systems	Conduct intrusion simulation tests	Simulate security breach scenarios	Intrusion simulation report	Security Testing Team
A265	1.5.4	Alarm & Intrusion Detection Systems	Conduct power failover tests	Verify system performance during power failure	Failover test report	Electrical Engineering Team
A266	1.5.4	Alarm & Intrusion Detection Systems	Conduct network failover tests	Validate network resilience	Network failover report	IT Infrastructure Team
A267	1.5.4	Alarm & Intrusion Detection Systems	Obtain system security approval	Certify alarm and IDS system readiness	Security approval certificate	Security Authority
A268	1.5.5	Visitor Management System	Define visitor registration procedures	Establish visitor access management procedures	Visitor management policy	Security Governance Team
A269	1.5.5	Visitor Management System	Configure visitor pre-registration system	Implement digital visitor registration system	Visitor system configuration	IT Systems Team
A270	1.5.5	Visitor Management System	Establish ID verification procedures	Define identity verification protocols	Verification procedure document	Security Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A271	1.5.5	Visitor Management System	Issue temporary visitor credentials	Generate visitor identification badges	Visitor credential records	Security Operations Team
A272	1.5.5	Visitor Management System	Define escort management procedures	Establish rules for escorting visitors	Escort procedure document	Security Team
A273	1.5.5	Visitor Management System	Configure visitor audit logging	Record visitor movements and activities	Visitor audit logs	IT Security Team
A274	1.5.5	Visitor Management System	Integrate visitor system with access control	Connect visitor management with access system	Integration report	IT Security Team
A275	1.5.5	Visitor Management System	Conduct visitor system acceptance testing	Validate visitor system functionality	Acceptance testing report	QA Team
A276	1.5.6	Secure Materials Handling Controls	Define secure material handling corridors	Establish controlled routes for material movement	Secure corridor plan	Operations Security Team
A277	1.5.6	Secure Materials Handling Controls	Implement dual-control handling procedures	Require dual personnel authorization for sensitive materials	Dual control procedure	Security Authority
A278	1.5.6	Secure Materials Handling Controls	Install scanning checkpoints	Deploy scanning systems for material verification	Scanning system installation	Security Systems Team
A279	1.5.6	Secure Materials Handling Controls	Implement tamper-evident packaging procedures	Establish secure packaging standards	Packaging procedures document	Operations Team
A280	1.5.6	Secure Materials Handling Controls	Establish reconciliation checkpoints	Verify material movement across checkpoints	Reconciliation records	Inventory Control Team
A281	1.5.6	Secure Materials Handling Controls	Configure exception alert mechanisms	Detect irregular material movements	Exception alert configuration	Cybersecurity Team
A282	1.5.6	Secure Materials Handling Controls	Validate material handling security processes	Test operational security procedures	Security validation report	Security Audit Team
A283	1.6.1	Factory Acceptance Testing (FAT)	Develop FAT testing strategy	Define testing objectives, scope, and acceptance criteria for factory testing	FAT testing strategy document	Engineering Team
A284	1.6.1	Factory Acceptance Testing (FAT)	Prepare FAT test plan	Develop detailed FAT procedures and test cases	FAT test plan	QA Team
A285	1.6.1	Factory Acceptance Testing (FAT)	Coordinate vendor testing schedule	Agree testing schedule with vendor manufacturing team	FAT schedule	Vendor Coordination Team
A286	1.6.1	Factory Acceptance Testing (FAT)	Inspect equipment prior to FAT	Conduct visual and functional inspection before testing	Inspection report	Engineering Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A287	1.6.1	Factory Acceptance Testing (FAT)	Execute FAT functional tests	Conduct operational testing of printing machinery at vendor facility	FAT execution report	QA Team
A288	1.6.1	Factory Acceptance Testing (FAT)	Record FAT test results	Document system performance during tests	Test results log	QA Team
A289	1.6.1	Factory Acceptance Testing (FAT)	Identify nonconformances	Log defects or deviations identified during testing	Nonconformance report	QA Team
A290	1.6.1	Factory Acceptance Testing (FAT)	Implement corrective actions	Vendor corrects defects identified during FAT	Corrective action report	Vendor Engineering Team
A291	1.6.1	Factory Acceptance Testing (FAT)	Conduct FAT re-testing	Verify resolution of nonconformances	FAT retest report	QA Team
A292	1.6.1	Factory Acceptance Testing (FAT)	Approve shipment authorization	Authorize equipment shipment after successful FAT	FAT approval certificate	Project Steering Committee
A293	1.6.2	Site Acceptance Testing (SAT)	Develop SAT test plan	Define test scenarios and acceptance criteria for installed systems	SAT test plan	QA Team
A294	1.6.2	Site Acceptance Testing (SAT)	Verify installation readiness	Confirm machinery installation completeness	Installation readiness report	Engineering Team
A295	1.6.2	Site Acceptance Testing (SAT)	Perform equipment functionality testing	Verify operational performance of installed machines	Functional testing report	Engineering Team
A296	1.6.2	Site Acceptance Testing (SAT)	Validate utility connections	Confirm electrical, water, and environmental connections	Utility validation report	Engineering Team
A297	1.6.2	Site Acceptance Testing (SAT)	Conduct environmental condition verification	Verify HVAC and humidity compliance	Environmental verification report	Facility Engineering Team
A298	1.6.2	Site Acceptance Testing (SAT)	Test system interface connections	Validate integration between systems	Interface testing report	Systems Integration Team
A299	1.6.2	Site Acceptance Testing (SAT)	Record system defects	Document issues identified during testing	Defect log	QA Team
A300	1.6.2	Site Acceptance Testing (SAT)	Implement corrective actions for defects	Resolve identified system defects	Corrective action report	Engineering Team
A301	1.6.2	Site Acceptance Testing (SAT)	Approve SAT completion	Confirm operational readiness of equipment	SAT approval document	Steering Committee
A302	1.6.3	Integrated System Testing	Develop integrated system test scenarios	Define end-to-end operational testing scenarios	Test scenario document	Systems Integration Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A303	1.6.3	Integrated System Testing	Conduct full production workflow simulation	Simulate end-to-end banknote production process	Simulation report	Operations Team
A304	1.6.3	Integrated System Testing	Validate production data flows	Verify flow of operational data across systems	Data flow verification report	IT Team
A305	1.6.3	Integrated System Testing	Verify audit logging functionality	Confirm integrity of security and production logs	Audit verification report	Cybersecurity Team
A306	1.6.3	Integrated System Testing	Test interoperability between OT/IT systems	Confirm compatibility between operational and IT systems	Interoperability report	Systems Integration Team
A307	1.6.3	Integrated System Testing	Resolve integration conflicts	Address technical conflicts identified during testing	Conflict resolution report	Engineering Team
A308	1.6.3	Integrated System Testing	Obtain governance approval	Approve integrated system readiness	Governance approval document	Steering Committee
A309	1.6.4	Trial Production Runs	Develop pilot production plan	Define controlled pilot production procedures	Pilot production plan	Operations Team
A310	1.6.4	Trial Production Runs	Conduct initial trial production runs	Run machines under controlled production conditions	Trial run report	Production Team
A311	1.6.4	Trial Production Runs	Measure production throughput	Evaluate production capacity and efficiency	Throughput measurement report	Engineering Team
A312	1.6.4	Trial Production Runs	Measure defect rates	Identify production defects during pilot runs	Defect rate report	Quality Control Team
A313	1.6.4	Trial Production Runs	Reconcile raw materials and output	Verify accuracy of material usage and output	Material reconciliation report	Inventory Control Team
A314	1.6.4	Trial Production Runs	Adjust production parameters	Optimize machine settings for efficiency	Parameter adjustment report	Engineering Team
A315	1.6.4	Trial Production Runs	Document production performance results	Record pilot production outcomes	Production performance report	Operations Team
A316	1.6.4	Trial Production Runs	Obtain approval for operational production	Approve readiness for full production	Governance approval	Steering Committee
A317	1.6.5	Quality Validation	Verify compliance with quality standards	Confirm compliance with currency production standards	Quality compliance report	Quality Assurance Team
A318	1.6.5	Quality Validation	Conduct product inspection certification	Validate product quality through inspection	Inspection certificate	Quality Control Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A319	1.6.5	Quality Validation	Conduct independent quality review	Third-party verification of product quality	Independent review report	External Auditor
A320	1.6.5	Quality Validation	Close nonconformance reports	Resolve quality defects identified	NCR closure report	QA Team
A321	1.6.5	Quality Validation	Obtain quality approval	Final approval for production quality	Quality approval certificate	Quality Authority
A322	1.6.6	Security Validation	Conduct penetration simulation tests	Simulate attempts to bypass security controls	Security test report	Security Audit Team
A323	1.6.6	Security Validation	Conduct access stress tests	Test performance of access control systems	Access stress test report	Security Engineering Team
A324	1.6.6	Security Validation	Conduct intrusion detection response tests	Validate IDS monitoring and response	IDS response report	Security Operations Team
A325	1.6.6	Security Validation	Conduct security audit log review	Verify audit trail accuracy	Security audit report	Cybersecurity Team
A326	1.6.6	Security Validation	Close security findings	Resolve vulnerabilities and security risks	Security remediation report	Security Team
A327	1.6.6	Security Validation	Obtain security board clearance	Certify security readiness	Security clearance document	Security Authority
A328	1.6.7	Operational Readiness Verification	Prepare operational readiness checklist	Define readiness criteria for operations	Readiness checklist	PMO
A329	1.6.7	Operational Readiness Verification	Review staff competency records	Verify staff training and certification status	Competency review report	HR / Training Team
A330	1.6.7	Operational Readiness Verification	Verify SOP documentation readiness	Confirm operational procedures documentation	SOP verification report	Operations Team
A331	1.6.7	Operational Readiness Verification	Validate emergency response procedures	Confirm emergency preparedness plans	Emergency readiness report	Security Team
A332	1.6.7	Operational Readiness Verification	Conduct residual risk assessment	Evaluate remaining operational risks	Risk assessment report	Risk Management Team
A333	1.6.7	Operational Readiness Verification	Obtain executive authorization for handover	Approve operational readiness and project completion	Executive authorization	Project Sponsor
A334	1.6.8	Performance Benchmark Testing	Conduct sustained-load production run	Test system performance under continuous operation	Load testing report	Engineering Team
A335	1.6.8	Performance Benchmark Testing	Capture baseline operational KPIs	Establish baseline performance indicators	KPI baseline report	Operations Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A336	1.6.8	Performance Benchmark Testing	Conduct downtime tolerance testing	Evaluate system resilience during downtime events	Downtime tolerance report	Engineering Team
A337	1.6.8	Performance Benchmark Testing	Verify environmental stability	Confirm facility environmental conditions under production load	Environmental verification report	Facility Engineering Team
A338	1.6.8	Performance Benchmark Testing	Approve benchmark performance metrics	Approve operational benchmark standards	Benchmark approval	Steering Committee
A339	1.7.1	Machinery Operation Training	Conduct training needs assessment	Identify operational roles and required competencies for machine operators	Training needs assessment report	HR & Operations Team
A340	1.7.1	Machinery Operation Training	Develop machinery training curriculum	Design training modules for printing machinery operations	Training curriculum document	Vendor Training Team
A341	1.7.1	Machinery Operation Training	Prepare training materials and manuals	Develop training guides, manuals, and instructional material	Training material package	Vendor Engineering Team
A342	1.7.1	Machinery Operation Training	Schedule vendor-led training sessions	Coordinate schedules for classroom and practical training	Training schedule	Training Coordinator
A343	1.7.1	Machinery Operation Training	Conduct theoretical machinery operation training	Deliver classroom instruction on equipment functionality	Classroom training report	Vendor Trainers
A344	1.7.1	Machinery Operation Training	Conduct hands-on equipment operation training	Provide practical machine operation training	Hands-on training report	Vendor Trainers
A345	1.7.1	Machinery Operation Training	Conduct troubleshooting simulation exercises	Train operators to identify and resolve machine faults	Troubleshooting simulation report	Engineering Team
A346	1.7.1	Machinery Operation Training	Conduct operator performance assessments	Evaluate operator competence during training	Assessment results	QA Training Team
A347	1.7.1	Machinery Operation Training	Issue operator certification	Certify trained operators and supervisors	Certification records	HR Department
A348	1.7.1	Machinery Operation Training	Archive training records	Store all training documentation in controlled repository	Archived training records	Document Control Team
A349	1.7.2	Security Protocol Training	Develop security policy manuals	Prepare security manuals for facility operations	Security manuals	Security Governance Team
A350	1.7.2	Security Protocol Training	Develop incident response training modules	Prepare training scenarios for security incidents	Training modules	Security Operations Team
A351	1.7.2	Security Protocol Training	Conduct security awareness workshops	Train staff on facility security protocols	Workshop reports	Security Trainers
A352	1.7.2	Security Protocol Training	Conduct security simulation drills	Run simulated security incident scenarios	Drill simulation report	Security Operations Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A353	1.7.2	Security Protocol Training	Conduct incident reporting exercises	Train staff to report security events correctly	Incident reporting training report	Security Team
A354	1.7.2	Security Protocol Training	Conduct segregation-of-duties training	Train staff on SoD compliance procedures	SoD training records	Compliance Team
A355	1.7.2	Security Protocol Training	Evaluate security training effectiveness	Assess staff understanding of security procedures	Security assessment report	Security Audit Team
A356	1.7.2	Security Protocol Training	Obtain security authority training approval	Certify completion of security training requirements	Security authority approval	Security Authority
A357	1.7.3	Cybersecurity Awareness Training	Develop cybersecurity training modules	Create cybersecurity awareness training content	Training modules	Cybersecurity Team
A358	1.7.3	Cybersecurity Awareness Training	Deliver cybersecurity awareness sessions	Conduct organization-wide cybersecurity training	Training session report	IT Security Team
A359	1.7.3	Cybersecurity Awareness Training	Conduct phishing simulation campaigns	Test employee awareness through phishing simulations	Phishing simulation report	Cybersecurity Team
A360	1.7.3	Cybersecurity Awareness Training	Train staff on secure system usage policies	Educate employees on secure system usage	Secure usage training report	IT Security Team
A361	1.7.3	Cybersecurity Awareness Training	Train staff on incident reporting procedures	Teach employees how to report cybersecurity incidents	Incident reporting training report	IT Security Team
A362	1.7.3	Cybersecurity Awareness Training	Conduct cybersecurity knowledge assessments	Evaluate training effectiveness	Cybersecurity assessment report	IT Security Team
A363	1.7.3	Cybersecurity Awareness Training	Validate cybersecurity awareness program	Approve cybersecurity training completion	Security validation report	Cybersecurity Governance Board
A364	1.7.4	Maintenance Training	Develop preventive maintenance training program	Design training program for maintenance personnel	Maintenance training program	Engineering Team
A365	1.7.4	Maintenance Training	Conduct diagnostics training sessions	Train maintenance staff on equipment diagnostics	Diagnostics training report	Vendor Engineers
A366	1.7.4	Maintenance Training	Train staff on spare parts management	Train maintenance staff on spare parts control	Spare parts training report	Inventory Management Team
A367	1.7.4	Maintenance Training	Conduct calibration training	Train technicians on calibration procedures	Calibration training report	Engineering Team
A368	1.7.4	Maintenance Training	Conduct equipment recovery training	Train staff on equipment recovery procedures	Recovery training report	Engineering Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A369	1.7.4	Maintenance Training	Certify maintenance technicians	Certify staff after training completion	Technician certification records	HR Department
A370	1.7.5	Governance & Compliance Orientation	Conduct governance orientation sessions	Train staff on project governance structure	Governance orientation report	PMO
A371	1.7.5	Governance & Compliance Orientation	Train staff on reporting procedures	Explain reporting structures and escalation processes	Reporting training report	PMO
A372	1.7.5	Governance & Compliance Orientation	Train staff on change control procedures	Explain change management procedures	Change control training report	Change Control Board
A373	1.7.5	Governance & Compliance Orientation	Conduct audit readiness training	Prepare staff for external audits	Audit readiness report	Compliance Team
A374	1.7.5	Governance & Compliance Orientation	Train staff on document control systems	Train staff on document management processes	Document control training report	Document Control Team
A375	1.7.5	Governance & Compliance Orientation	Validate compliance training completion	Confirm training completion across departments	Compliance validation report	Compliance Team
A376	1.7.6	Vendor Knowledge Transfer	Deliver equipment handover documentation	Provide operational manuals and configuration documents	Handover documentation	Vendor Team
A377	1.7.6	Vendor Knowledge Transfer	Conduct system walkthrough sessions	Explain system architecture and operation	Walkthrough reports	Vendor Engineers
A378	1.7.6	Vendor Knowledge Transfer	Conduct operational shadowing sessions	Allow local staff to observe vendor operations	Shadowing report	Operations Team
A379	1.7.6	Vendor Knowledge Transfer	Conduct Q&A knowledge workshops	Address operational questions and knowledge gaps	Workshop report	Vendor Engineers
A380	1.7.6	Vendor Knowledge Transfer	Validate operational independence	Confirm staff ability to operate systems independently	Independence validation report	Operations Management
A381	1.7.6	Vendor Knowledge Transfer	Obtain vendor knowledge transfer signoff	Confirm successful transfer of operational knowledge	Vendor signoff document	Vendor Representative
A382	1.7.7	SOP Development & Documentation	Draft operational standard operating procedures	Develop SOP documents for facility operations	SOP draft documents	Operations Team
A383	1.7.7	SOP Development & Documentation	Validate SOPs through trial production runs	Test SOP effectiveness in operational environment	SOP validation report	QA Team
A384	1.7.7	SOP Development & Documentation	Conduct security review of SOPs	Verify SOP compliance with security protocols	Security review report	Security Governance Team

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Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A385	1.7.7	SOP Development & Documentation	Obtain governance approval for SOPs	Approve SOPs through governance board	SOP approval document	Governance Board
A386	1.7.7	SOP Development & Documentation	Implement document version control	Establish SOP version control procedures	Version control records	Document Control Team
A387	1.7.7	SOP Development & Documentation	Release SOP library for operational use	Publish SOPs to operational teams	SOP distribution records	Document Control Team
A388	1.7.8	Competency Validation	Conduct competency examinations	Assess knowledge of trained staff	Examination results	HR Department
A389	1.7.8	Competency Validation	Conduct practical competency demonstrations	Evaluate staff performance during operational tasks	Demonstration evaluation report	Operations Team
A390	1.7.8	Competency Validation	Conduct operational simulation exercises	Test staff readiness through operational simulations	Simulation report	Operations Management
A391	1.7.8	Competency Validation	Certify staff for critical operational roles	Certify operators, technicians, and supervisors	Certification records	HR Department
A392	1.7.8	Competency Validation	Address competency gaps	Conduct additional training to close skill gaps	Training remediation report	Training Team
A393	1.7.8	Competency Validation	Approve final staff competency readiness	Confirm workforce readiness before operational transition	Competency approval document	Executive Management
A394	1.8.1	SOP Finalization & Approval	Conduct final SOP review workshop	Review all operational procedures with operational and security teams	SOP review report	Operations Management
A395	1.8.1	SOP Finalization & Approval	Incorporate lessons learned into SOPs	Integrate lessons from testing and trial production runs	Updated SOP drafts	Operations Team
A396	1.8.1	SOP Finalization & Approval	Validate segregation-of-duties compliance	Ensure SOPs comply with SoD and security policies	SoD compliance report	Security Governance Team
A397	1.8.1	SOP Finalization & Approval	Conduct security validation of procedures	Verify SOP compliance with facility security protocols	Security validation report	Security Authority
A398	1.8.1	SOP Finalization & Approval	Route SOPs for formal approval	Submit SOP package through governance approval workflow	SOP approval package	PMO
A399	1.8.1	SOP Finalization & Approval	Publish controlled SOP versions	Release approved SOPs under document control system	Published SOP library	Document Control Team
A400	1.8.1	SOP Finalization & Approval	Archive baseline SOP versions	Store final SOP versions in configuration repository	Archived SOP baselines	Configuration Management Team

Detailed Activity List



Project: National Currency Printing and Secure Banknote Production Facility Project (NCPBF)

Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A401	1.8.2	Handover Documentation	Compile as-built engineering documentation	Collect final engineering drawings and technical documents	As-built documentation set	Engineering Team
A402	1.8.2	Handover Documentation	Collect equipment manuals and warranties	Gather operational manuals and warranty documentation	Equipment documentation package	Procurement Team
A403	1.8.2	Handover Documentation	Verify security clearance documentation	Confirm security authorization for operational personnel	Security clearance records	Security Authority
A404	1.8.2	Handover Documentation	Compile training records and certifications	Assemble all staff training and certification records	Training records archive	HR Department
A405	1.8.2	Handover Documentation	Prepare configuration baseline documentation	Document final configuration baseline of systems	Configuration baseline package	Configuration Management Team
A406	1.8.2	Handover Documentation	Conduct completeness verification review	Verify completeness of the handover package	Completeness verification report	PMO
A407	1.8.2	Handover Documentation	Obtain formal handover documentation signoff	Secure approval of final handover documentation	Handover approval document	Steering Committee
A408	1.8.3	Asset Transfer Documentation	Tag project assets	Assign asset identification tags to all equipment	Asset tagging records	Asset Management Team
A409	1.8.3	Asset Transfer Documentation	Verify asset serial numbers	Validate equipment serial numbers against procurement records	Serial verification report	Procurement Team
A410	1.8.3	Asset Transfer Documentation	Update organizational asset registry	Record assets in organizational asset registry system	Asset registry updates	Finance Department
A411	1.8.3	Asset Transfer Documentation	Assign warranty ownership	Transfer equipment warranty ownership to operations team	Warranty assignment records	Procurement Team
A412	1.8.3	Asset Transfer Documentation	Reassign access rights for operational teams	Transfer system and facility access permissions	Access rights transfer report	IT Security Team
A413	1.8.3	Asset Transfer Documentation	Verify asset audit traceability	Confirm asset traceability for compliance purposes	Asset audit verification report	Internal Audit Team
A414	1.8.4	Performance Baseline Establishment	Define operational performance KPIs	Establish key performance indicators for production	KPI definition document	Operations Management

Detailed Activity List



Project: National Currency Printing and Secure Banknote Production Facility Project (NCPBF)

Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A415	1.8.4	Performance Baseline Establishment	Establish KPI monitoring framework	Define monitoring processes and reporting intervals	Monitoring framework document	Performance Management Team
A416	1.8.4	Performance Baseline Establishment	Validate baseline performance metrics	Confirm baseline metrics based on benchmark testing	Baseline performance report	Engineering Team
A417	1.8.4	Performance Baseline Establishment	Obtain governance endorsement of KPIs	Approve operational performance metrics	Governance approval document	Steering Committee
A418	1.8.4	Performance Baseline Establishment	Publish performance dashboards	Deploy operational performance monitoring dashboards	Performance dashboards	IT Systems Team
A419	1.8.5	Formal Transition to Operations	Develop operational transition plan	Prepare plan for transferring authority to operations	Transition plan	PMO
A420	1.8.5	Formal Transition to Operations	Conduct transition planning meetings	Coordinate transition between project and operations teams	Transition meeting minutes	PMO
A421	1.8.5	Formal Transition to Operations	Transfer operational authority	Assign operational control of systems to operations department	Authority transfer documentation	Executive Management
A422	1.8.5	Formal Transition to Operations	Confirm operational support model	Establish maintenance and operational support framework	Support model documentation	Operations Management
A423	1.8.5	Formal Transition to Operations	Issue executive acceptance memorandum	Formal acceptance of operational readiness	Executive acceptance memo	Project Sponsor
A424	1.8.5	Formal Transition to Operations	Initiate operational startup	Begin official operational activities	Operational startup report	Operations Team
A425	1.8.6	Benefits Ownership Transfer	Identify operational KPI owners	Assign responsibility for benefit realization	KPI ownership matrix	Benefits Management Team
A426	1.8.6	Benefits Ownership Transfer	Define benefits reporting schedule	Establish reporting cadence for benefits monitoring	Reporting schedule	Governance Team
A427	1.8.6	Benefits Ownership Transfer	Integrate benefits monitoring into governance cycle	Embed benefit tracking in governance reviews	Governance integration report	PMO
A428	1.8.6	Benefits Ownership Transfer	Validate accountability matrix	Confirm responsibility assignments	Accountability matrix	Governance Board
A429	1.8.6	Benefits Ownership Transfer	Approve benefits ownership transfer	Obtain governance approval for benefit ownership	Approval document	Steering Committee

Detailed Activity List



Project: National Currency Printing and Secure Banknote Production Facility Project (NCPBF)

Activity ID	WBS	Work Package	Detailed Activity	Description	Deliverable / Output	Responsible Role
A430	1.8.7	Project Closure & Governance Sign-Off	Verify completion of project scope	Confirm all deliverables have been completed	Scope completion report	PMO
A431	1.8.7	Project Closure & Governance Sign-Off	Close project contracts	Finalize vendor contracts and obligations	Contract closure report	Procurement Team
A432	1.8.7	Project Closure & Governance Sign-Off	Conduct financial reconciliation	Confirm final project financial statements	Financial reconciliation report	Finance Department
A433	1.8.7	Project Closure & Governance Sign-Off	Conduct lessons learned workshop	Capture lessons learned from project implementation	Lessons learned report	PMO
A434	1.8.7	Project Closure & Governance Sign-Off	Archive project documentation repository	Store project documentation in official archive	Archived project repository	Document Control Team
A435	1.8.7	Project Closure & Governance Sign-Off	Obtain final steering committee approval	Secure final project closure approval	Final project closure approval	Steering Committee