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Federal Bureau of Prisons

PROGRAM STATEMENT

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Facilities Operations Manual

/s/

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1. PURPOSE AND SCOPE

Since the Manual's last edition, operations have been changed and new policies developed to improve organizational efficiency. This edition incorporates individual duties of Facilities Management staff, makes changes reflecting new laws and regulations, and consolidates Bureau directives regarding physical plant maintenance and operations.

a. Summary of Changes

Policy Rescinded

P4200.10 Facilities Operations Manual (1/24/2006)

This Program Statement incorporates changes in the areas listed below:

- Rewrite of Chapter 1, Facilities Administration and Organization
- Rewrite of Chapter 2, Work Programming, Scheduling and Reporting
- Rewrite of Chapter 3, Buildings and Facilities Projects
- Rewrite of Chapter 4, Architect-Engineer Services
- Rewrite of Chapter 5, Preventive Maintenance/Inspections
- Rewrite, renaming, and renumbering of Chapter 6, Automated Systems and Document Control
- Rewrite and renaming of Chapter 7, Life Safety/Fire Protection
- Rewrite and renaming of Chapter 8, Environmental
- Rewrite of Chapter 9, Telecommunication Systems and Electronic Equipment
- Rewrite and renaming of Chapter 10, Vehicle Fleet
- Rewrite of Chapter 11, Mechanical Systems and Power Plant Operations

- Rewrite of Chapter 12, Electrical Systems
- Rewrite of Chapter 13, Physical Plant Review Program
- Rewrite of Chapter 14, Plumbing Systems
- Rewrite of Chapter 15, Accessibility
- Rewrite, renaming, and renumbering of Chapter 16, Energy/Water Conservation and Greenhouse Gas
- Rewrite of Chapter 17, Historic Preservation

b. **Program Objectives.** Expected results of this program are:

- Institutions will be designed and maintained to meet the physical and functional needs of the Bureau of Prisons.
- Applicable building codes and operational and regulatory standards will be met in Bureau facilities.
- Oversight and master planning for physical plant maintenance and construction programs will be managed.
- The agency's capital investments will be preserved through program accountability standardized reporting and workforce training

c. **Institution Supplement.** This Program Statement requires the following Institution Supplements:

- Procedures for monthly controlled operational testing of the Perimeter Detection System, reporting procedures for notifications of security system outages, and the extent of inmate labor that may be used on telecommunication or security electronics (see Chapter 9).
- Procedures on required use of fleet cards, procedures for issuing vehicles, procedures for dispensing fuel after hours, and procedures on reporting accidents (see Chapter 10).
- Procedures to establish an Energy Conservation Committee, department head and duty officer observation practices related to energy conservation, employee awareness, and incentive award programs for energy conservation.

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Chapter 1. FACILITIES ADMINISTRATION AND ORGANIZATION

1. ADMINISTRATION

The Facilities Management Branch of the Administration Division, under the general direction of the Assistant Director for Administration, is responsible for coordination, oversight, and policy development for facilities management activities at all Bureau-controlled facilities. This includes facilities owned by the Bureau, and other governmentally owned facilities/buildings occupied by the Bureau (see 1.1, Facilities Management Branch Organization Chart, in the Facilities Reference and Operations Guide [FROG], posted on Sallyport).

Regional Office staff members oversee new construction at existing institutions, as well as physical plant improvements, preventive maintenance, power plant, and utility systems (including UNICOR buildings). New facilities construction projects may be transferred to regions at the discretion of the Assistant Director for Administration and the appropriate Regional Director (see 1.2, Regional Facilities Organization Chart, in the FROG).

Institution facility operations are under the Facility Manager's direct supervision. General supervision is provided by the Associate Warden, appointed by the Warden (see 1.3, Institution Organization Chart, in the FROG).

2. STAFF ORGANIZATION AND RESPONSIBILITIES

a. **Regional Facilities Office.** The Regional Facilities Office is comprised of a Facilities Administrator and appropriate construction and technical personnel.

The Facilities Administrator is responsible for the overall development, implementation, and management of the region's Buildings and Facilities (B&F) program as well as general oversight of institution facility operations and work programming.

The Regional Director ordinarily delegates to the Facilities Administrator the responsibility and authority to administer the B&F program and provide direction for institution facility operations.

The Regional Facilities Administrator's responsibilities include:

- Programming and monitoring B&F funds.
- Preparing annual budget requests.
- Establishing B&F projects.
- Reviewing annual institution B&F requests and establishing B&F project priority lists.
- Preparing design programs for new buildings and physical plant improvements.

- Furnishing detailed planning and design services and implementing procedures for negotiation and selection of architect/engineer firms.
- Maintaining files for B&F projects and for correspondence related to institution Work Orders.
- Assisting the Contracting Officer in processing change orders, supplemental agreements, requests for payments, and other procedures in the administration of construction and service contracts.
- Assisting the Contracting Officer in reviewing and evaluating bids for construction and major equipment acquisition.
- Coordinating the supervision of construction by contractors.
- Monitoring reports from institutions to evaluate progress of B&F projects, Work Orders, preventive maintenance, and facility operations.
- Assisting institutions in conducting and developing Long Range Master Plans and Strategic Plans (see provisions in Chapter 13).
- Providing advice concerning personnel appointments to positions of Facility Manager, General Foreman, Chief of Utilities, and Project Representatives.
- Reviewing prints, plans, and specifications to ensure they meet the requirements of applicable building codes, National Fire Protection Association (NFPA) standards, historic preservation regulations, seismic safety, Architectural Barriers Act (ABA), environmental codes and regulations, life cycle costing, and Technical Design Guidelines (TDG) when applicable. The TDG's are used as a baseline guide for new construction.
- Assisting institutions with compliance with policy and practices in all physical plant and infrastructure operations, maintenance, construction, renovation, equipment replacement, and/or repair, etc.
- Visiting every institution within the Region every 24 months.
- Visiting the institution of a newly hired Facility Manager and providing hands-on training, which includes, but is not limited to: policy requirements, Program Review Guidelines, budgeting practices and procedures, completing performance evaluations, overall management techniques, etc.

b. Institution Facilities Department

(1) **Institution Facility Manager.** The institution Facility Manager is responsible for:

- Managing all construction, repairs, improvements, and maintenance of the institution's physical plant, staff housing, and BOP-owned buildings operated by UNICOR. This includes all equipment (excluding UNICOR equipment), utilities, energy conservation, and structures.
- Preparing preliminary plans, and working drawings and estimates involving construction and renovations.

- Preparing the departmental budget Salaries & Expenses (S&E) and B&F, personnel management, reporting compliance, and monitoring of environmental requirements of local, state, and Federal regulations.
- Ensuring that required licenses and permits are obtained and are on file as prescribed by local, state, and/or Federal laws, to include licenses and/or permits for boiler plant operations, sewage plant operations, potable water treatment, fuel storage tanks, generators, etc.
- Ensuring compliance with Historic Preservation Act, ABA, NFPA standards, and all applicable building codes (latest version).
- Ensuring sufficient numbers of foremen are hired and are skilled in specific trades to meet the needs of the institution, and supervise and operate each shop.
- Ensuring the security clearance requirements for construction and maintenance contractors are in compliance with the Program Statement **Human Resources Management Manual**.

(2) **Institution General Foreman or Chief of Utilities.** The Institution General Foreman is under the Facility Manager's immediate supervision and is responsible for assisting in the management of personnel, budget, and operations of the Facilities Department.

The General Foreman or Chief of Utilities assists in the development of the facility workforce, focusing attention on the strengths and weaknesses of existing operations. The General Foreman or Chief of Utilities is responsible for:

- All construction, maintenance, inspection and repair of buildings and grounds, and vehicle fleet management.
- Maintenance, operation, and inspection of all utility systems within the buildings.
- Fixed standby emergency generators.
- Refrigeration and chiller systems.
- Sewage and water treatment plants, including underground water supply and storm and sanitary drainage systems.
- Steam and hot/chilled water distribution and building heating systems.
- Ventilation and A/C systems.
- Primary and secondary electrical systems from substations to and including all building entrance panels and transformers (not to include equipment owned or maintained by the utility company).
- The operation, inspection, and maintenance of all gas and oil ovens, compressed air systems, and similar equipment.
- Well pumps, water storage tanks, water treatment, and chlorination operations (not to include equipment owned or maintained by the utility company).

Institution construction and maintenance personnel are under the General Foreman's immediate control and supervision, except for those shops that are located in or related to the power plant at institutions that have a Chief of Utilities (see 1.3, Institution Organization Chart, in the FROG).

At institutions that do not have a General Foreman or Chief of Utilities, the Facilities Manager will be responsible for these duties.

(3) **Tool Control.** The Facility Manager is to provide input when necessary into the annual review of Tool Control Institution Supplements.

(4) **Staff Meetings.** The Facilities Department of each institution will hold monthly staff meetings, unless mutually agreed upon by the Facilities Manager and the Union, but at a minimum, quarterly.

Prior to each meeting, a notification is prepared and distributed to all staff stating meeting time and place.

The Facilities Manager will provide the Union in advance with a list of scheduled meetings. If the Union designates a representative for these meetings, the appropriate supervisor will ensure that the designated representative is relieved to attend the meeting.

Minutes of each meeting are available in the Computerized Maintenance Management System (CMMS). A hard copy of the staff meeting minutes is maintained within the Facilities Department in accordance with the Program Review cycle.

c. **Employee Training.** It is the Facility Manager's responsibility to ensure that an adequate employee training program is in place within the department. The Facility Manager coordinates with the institution's training coordinator to complete an annual training needs assessment for each Facilities department employee in accordance with current Bureau directives. Staff members requiring training for qualification or maintaining required licensing or certification will be given priority for training needs and funding.

Each new Facility Manager and General Foreman, within 18 months of entry, must complete:

- Facilities Management, Program Review, Financial Management, and Safety and Environmental Compliance Cross Development Courses.
- Facilities Management (Basic) (Central Office Funded) (Pre-requisite: Facilities Cross Development Course).
- Federal Acquisition Certification-Contracting Officer's Representative's (FAC-COR), Level II.

- NFPA Life Safety 101 (Central Office Funded).

Each Facility Manager must attend Facility Management (Advanced) (Central Office Funded) within three years, and every five years thereafter (General Foremen may request this training).

Each new Facilities Assistant and Engineering Technician, within 18 months of entry, must:

- Complete the Facilities Computerized Maintenance Management Systems Basic (CMMS Basic) (Central Office Funded).
- Complete the Facilities Cross Development Course.

Each Facilities Assistant and Engineering Technician, within 3 years and every 3 years thereafter, must complete the CMMS - Advanced (Central Office Funded).

Each Engineering Technician, within 18 months of entry, must complete Federal Acquisition Certification-Contracting Officer's Representative's (FAC-COR), Level II.

Engineering Technicians may request Facilities Management Training (Basic), NFPA National Fire Alarm and Signaling Code 72, NFPA Standard for the Installation of Sprinkler Systems 13, and NFPA Life Safety 101 (Central Office Funded) (Pre-requisite: Facilities Cross Development Course).

d. Inmate Workers

(1) **Policy.** To the extent possible, sufficient numbers of inmates with appropriate skills are to be assigned to the Facilities Department. This number is to correlate with the approved institution work program.

(2) **Assignment.** Inmates assigned to the Facilities Department will be provided opportunities to acquire skills and abilities that may assist in obtaining employment after release, and at the same time accomplish the institution's work program.

The Facility Manager or designee must interview each newly assigned inmate in an effort to select the work assignment most helpful to the work program.

Each inmate is to be given copies of work rules, safety requirements, or other information pamphlets, and written explanation of general rules or procedures, which the inmate is expected to follow.

Facilities Department detail supervisors must maintain a Hazardous Communications Training Program and provide inmate workers with appropriate hazardous communication information, as

well as the Job Efficiency Training program, as required by the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection.**

Inmates showing satisfactory adjustment and demonstrating acceptable skills, dependability, and positive work habits may be recommended by the detail supervisor for assignment to jobs requiring higher skill levels, in accordance with Institution Supplements.

(3) **Level of Responsibility.** All facilities staff are responsible for the work they perform and/or supervise. As defined in the Program Statement **Inmate Work and Performance Pay**, there are various skill levels for inmate workers.

Certain functions have been, and will continue to be, the responsibility of each individual foreman or detail supervisor. Inmates will not be given the sole responsibility for:

- The preliminary planning and laying out of work for future projects, including the steps needed to accomplish them.
- The interpretation of blueprints or specifications.
- The determination of work procedures when they affect other inmates or staff.
- The substitution of materials or the estimating of materials for size, type, or quantity without review.
- The checking of other inmate work for quality and/or quantity against standard criteria.
- The completion of work on a project without staff supervisory review.

It may become necessary for a supervisor to perform tasks that inmate workers normally would accomplish. This work may be in areas that ordinarily are off limits to inmates; on equipment that is critical to security; or above the inmate worker's level of competence, skill, or knowledge.

(4) **Inmate Quotas and Requirements.** The management and staff of the Facilities Department, in conjunction with the Institution Inmate Performance Pay Committee, are to develop realistic quotas of inmate workers for each shop or construction detail. No more inmates than staff can effectively manage and control are permitted on a detail assignment.

(5) **Performance Reports.** Facilities staff must submit reports on inmate workers to Case Management staff using the current Work Performance Rating form or other forms as the Institution Supplement requires.

e. Diversity Management and Affirmative Employment Programs. Local Diversity Management and Affirmative Employment Programs must comply with the current Program Statement **Diversity Management and Affirmative Employment Programs.**

Chapter 2. WORK PROGRAMMING, SCHEDULING, AND REPORTING

1. GENERAL PROCEDURES

Under the Warden's general supervision, an Associate Warden (or other staff member appointed by the Warden) is responsible for the supervision of the institution work program and exercises primary influence in coordinating manpower, funds, and materials in program planning and implementation.

The Facility Manager, under the Associate Warden's general supervision, is responsible for planning, program scheduling, and reporting of construction and maintenance activities in accordance with this Manual.

2. WORK PROGRAMMING COMMITTEE (WPC)

- a. **Purpose.** The WPC is responsible for reviewing construction, repair, and maintenance activities. Special Session meetings will be scheduled as needed.
- b. **Membership.** The committee consists of the Associate Warden (who serves as Chairperson), Facility Manager, Business Administrator, General Foreman, Chief of Utilities, Environmental and Safety Compliance Administrator, Associate Warden (Industries) or Industries Superintendent, and a Union representative. Additional staff may participate with the chairperson's consent.
- c. **Duties of Members.** The Associate Warden is responsible for overall supervision of Work Programming and presides as chair at committee meetings. The Chair determines the date and time of meetings, initiates advance notices to members, and consults with the Facility Manager to determine inmate and personnel assignments and to predict the availability of manpower for future work projects.

The Facility Manager is responsible for recommending a schedule for accomplishing each work item, including the start date and time span needed, with consideration given to the following:

- Existing work load.
- Availability of funds and employees for supervising work.
- Available inmate hours.
- Weather conditions.
- Equipment required.
- Material procurement.
- Spacing of work to provide a reasonably constant and continuing cycle of employment.

d. **Meetings.** At a minimum, WPC meetings are held in March (in conjunction with Master Planning) and October.

e. **Meeting Agenda.** The WPC meeting agenda is to be in accordance with the prescribed format. The following program areas must be addressed:

- Work Orders.
- Preventive (PM/PE's) Work Orders.
- Inmate manpower.
- Staff manpower.
- Motor vehicle fleet,
- Energy conservation.
- Work Orders greater than \$10,000: The Committee reviews each Work Order exceeding \$10,000 that was active and/or completed since the last WPC meeting.
- B&F, Trust Fund, or B&I projects: The Committee reviews each active and completed project during the reporting period:
 - Project number and title.
 - Funds allotted to date.
 - Funds obligated to date.
 - Percent complete.
 - Estimated completion date.
 - Current narrative.

The Committee reviews all Master Planning justification data concerning B&F Project submissions (including UNICOR and Trust Fund Projects). See Chapter 3 for Master Planning requirements.

The Committee examines all departmental program reviews and responses to determine the need to schedule work to address findings with the institutional infrastructure.

f. **Minutes of WPC Meetings.** Minutes should contain a summary of the following:

- The actual decisions of the meeting, identifying each Work Order and B&F project on which decisions are made by name and number.
- The status and priority of Work Orders and B&F projects the Committee reviewed.
- New Work Orders exceeding \$10,000 approved, with a brief description and estimated cost.
- Proposed B&F projects to be submitted for approval, with a brief description and estimated cost.

A copy of the WPC Report will be available to each Committee member and Regional Office, upon request.

3. WORK ORDERS (\$10,000 OR LESS)

a. **General.** Each department has designated staff available to enter pending Work Orders via the CMMS Web Request page. All staff members are encouraged to notify their departments' designated staff of the need for repairs of the buildings and grounds or equipment in their areas, including staff housing. If Facilities Department staff members complete work without a Work Order, the staff requesting the work will ensure a request is submitted via the CMMS Web Requester page. If the asset number is available, the requesting party will enter the asset number on the Work Order.

Exceptions. Repairs of an emergency nature may be made and approved verbally. The staff requesting the emergency work will ensure a Work Order is entered in CMMS for appropriate processing. If the Facility Manager or designee cannot be contacted immediately concerning emergency repairs, the appropriate shop, powerhouse, or facilities personnel are to be contacted directly during normal work hours. Emergency repairs, after normal working hours, must be approved by the Facility Manager or designee in accordance with local overtime procedures.

b. **Processing.** Requests for work are reviewed, approved, and assigned to the appropriate facilities staff by the Facility Manager or designee. All pending Work Orders will be reviewed and either approved or canceled within 7 days of the date created. The Facility Manager will strive to achieve a level of 10% or less in a twelve-month period for processing pending work orders. A copy of the approved Work Order is forwarded to the appropriate facilities staff member. At the staff member's request, the Work Orders can be emailed. Work Orders are assigned a priority rating by the Facility Manager or designee. Priorities are designated as follows:

- **“1” - URGENT.** Priority 1's are given preference over all active work. All priority 1 – Urgent Work Orders must be addressed as soon as possible. If there are multiple priority 1 Work Orders, the Work Orders must be completed in numerical order, unless directed in writing by the Facility Manager or designee.
- **“2” - ROUTINE.** Priority 2's are typically completed in numerical order. If a routine Work Order is elevated to a “1” Urgent Work Order, the routine Work Order will be canceled and re-entered as a priority 1 Work Order.

If the event a Work Order exceeds \$10,000, a second Work Order will be issued per the requirements in this chapter on Work Orders Greater the \$10,000.

On a weekly basis, the Facility Manager or designee must evaluate all Work Orders that are active for 45 days to determine if a Work Order needs to be canceled and re-created at a later date. Canceled Work Orders must have comments entered in CMMS as to why they were canceled. The Facility Manager will strive to achieve completing work orders within 45 days is 5% or less in a twelve-month period.

Upon completion of a Work Order, the facilities staff member that completed the work must complete the Work Order form. Data on the form is to include a detailed list of all materials used and the total material cost, total staff time, indication of whether the work was completed on an Asset and the Asset number, any relevant completion comments, and signature.

Once the Work Order is completed, all data will be entered in CMMS. If any additional/follow-up work is needed, a new pending Work Order will be entered.

All completed Work Orders are submitted to the Facility Manager or designee for review and to be filed.

When necessary, a copy is forwarded to the Business Administrator for billing to UNICOR and Trust Fund (reference the Program Statement **Accounting Management Manual**).

c. **Records.** After completing the Work Order in CMMS, an original hard copy of the Work Order will be maintained in a “Completed Work Orders” file. At the Facility Manager’s discretion, institutions may maintain electronic copies in lieu of hard copies. The file will be maintained for 24 months.

4. **WORK ORDERS GREATER THAN \$10,000**

a. **General.** “Work Orders greater than \$10,000” includes the total cost to complete all tasks associated with a Work Order. All Work Orders greater than \$10,000 must first be approved by the Warden. Once approved by the Warden, a copy is submitted to the Regional Director and Regional Facilities Administrator. See the FROG for a sample of the required accompanying memorandum.

Work Orders costing between \$10,001 and \$50,000 are to be approved by the Regional Director. Work Orders that exceed \$50,000 are to be approved by the Assistant Director for Administration, Central Office. The Work Order must have the applicable approvals prior to any related purchases or work commencement. Refer to the Program Statement **Use of Appropriations** for the utilization of S&E funds for emergency circumstances. All Work Orders greater than \$10,000 must comply with the requirements for “Modifications of Existing

Facilities” found in this chapter. Multiple Work Orders less than \$10,000 cannot be entered and completed to circumvent the Work Orders greater than \$10,000 requirements.

The Facility Manager supplies the Warden with the following information for each new submission:

- A description of the proposed Work Order, including the size, scope and any unusual conditions.
- Detailed cost estimate.
- Estimated staff man-hours.
- Single line drawing, if required.
- Projected start and completion dates.

If the Warden recommends approval of a Work Order exceeding the \$10,000 limit, follow the procedures contained in this Chapter.

b. **Processing.** Once approved, a Work Order is entered in CMMS as a Work Order greater than \$10,000.

c. **Records.** Records (cost estimates, staff man-hours, drawings if required, projected starting and completion dates, etc.) regarding all Work Orders greater than \$10,000 are to be maintained as follows:

- The Facility Manager maintains an individual file folder for each approved Work Order greater than \$10,000 (see the FROG for filing requirements).
- The Regional Facilities Administrator maintains copies of all Work Order documents requiring regional review and approval. An individual file folder is not required for each approved Work Order document.

5. SUPPLIES AND MATERIALS

The Facility Manager or designated Cost Center Manager is responsible for requesting the purchase of materials, equipment and supplies required for all Work Orders and B&F projects. Accountability of S&E funds provided from decision units other than “P” is the appropriate cost center manager’s responsibility.

Facilities staff members are responsible for completing the applicable purchase documentation (i.e., Request for Purchase or Credit Card form) for submission. Any purchase above the Federal Acquisitions Regulation (FAR) micro-purchase limit requires a Contracting Officer to procure the services.

If the materials are being purchased to complete a specific Work Order or B&F Project, the Work Order or project number must be indicated on the purchase documentation.

Materials purchased to complete B&F Projects must be used for that specific project only. S&E Funds will not be used for B&F Projects and B&F funds will not be used for S&E Work.

Cost Center Managers are responsible for ensuring fund control numbers and accounting classification codes are assigned to all procurement documents.

6. MODIFICATION OF EXISTING FACILITIES

a. **Central Office Approval.** The Regional Facilities Administrator must submit to the Central Office, Chief, Facilities Programs Section, or designee for approval, all designs for new construction at existing institutions and for renovations that change the use or design of existing buildings. The submission will be reviewed for conformity with Federal Law and regulations, appropriate codes, Federal Property Management Regulations (C.F.R. Title 41), national Department of Justice and Bureau policy and programs, the Design Program Guidelines, and the Technical Design Guidelines (TDG), as applicable. Effective 2015, the TDGs will be under the responsibility of the Facilities Management Branch. All revisions and additions must be reviewed and approved by the Chief, Facilities Management Branch. No changes to existing institutions may be made for the sole purpose of updating the buildings or infrastructure in order to match current Design Program Guidelines or TDGs.

The Chief, Facilities Programs, or designee, is responsible for reviewing all submissions from the Regional Facilities Administrators. To promote consistency and enhance the quality and validity of the reviews, both at the Regional and Central Office levels, the following information must accompany all project submissions:

- The submitted prints must be reviewed by appropriate regional staff, approved by the Regional Facilities Administrator, and be of sufficient size, clarity, and detail for the reviewer to determine policy compliance.
- An explanation whether the project entails new construction or the renovation of existing space.
- An indication of any time constraints that may impact review priority.
- A statement, either on the plan cover sheet, or in the incoming regional correspondence, as to whether the project affects the Rated Capacity of the institution permanently or temporarily (until proposed renovations, expansion, and/or new construction is completed).
- The plan cover sheet or incoming regional correspondence must include the estimated cost of the project.

- Submission of electronic plans (AutoCad.dwg files) and specifications via email is strongly encouraged. Central Office will also accept hard copy plans. Both electronic and hard copy plans must contain all elements referenced above.

b. **Regional Approval.** No modification or addition to existing buildings or utility systems, including fences, site work or topography, etc., may take place without the prior written approval of the Regional Facilities Administrator or designee. This includes items such as modifications to life safety elements, infrastructure (walls, floors, ceilings, etc.), security electronics, or modifications that alter the performance of a utility or mechanical system. Routine maintenance or replacement of components does not require regional approval.

The Regional Facilities Administrator is responsible for ensuring all modifications to existing facilities, including new construction, meet the requirements of this Program Statement, Executive Order 12699 regarding Seismic Safety, and the Architectural Barriers Act (ABA). The Regional Facilities Administrator must review all modifications regarding fire protection and life safety to ensure compliance with applicable NFPA Standards. All requests are to be examined for consistency with the guidelines contained in the TDGs. Any proposed deviation from those guidelines must be fully justified.

c. **Safety Review.** The institution Environmental and Safety Compliance Administrator is to review and sign any plans that affect life safety and environmental concerns before submission to the Regional Office.

d. **Security Review.** The institution Chief Correctional Supervisor is to review any plans for alterations, renovations, and in-house new construction that requires the procurement of locks and/or involves institution security before submission to the Regional Office.

e. **CEO Review.** The Warden or designee will sign all plans before submission to the Regional Office.

f. **Disposal of Real Property.** The disposal of real property (buildings and other structures) is to be done consistent with the Program Statement **Property Management Manual**. See Form BP-A0886, Request for Disposal of Real Property, located on Sallyport.

g. **Real Property Asset Recognition Form.** The Facility Manager is responsible for preparing and forwarding to the Business Office an Asset Recognition Form (ARF) (P2350.02) once capitalized real property is put in use. The form and additional guidance can be found in the Program Statement **Accounting for Real Property, Depreciation, and B&F Projects**.

h. **Contract Work.** The Facility Manager must establish a daily Construction Log Book for each Work Order being completed, wholly or in part, by contractors. If contractor involvement in the project is anticipated to be less than 120 hours, a construction logbook is not required. Logbook documentation requirements are found in Chapter 3 of this Manual.

7. REPORTING

a. **General Requirements.** Specific reporting procedures are addressed in each chapter. Generalized reporting procedures are as follows.

(1) **Institution.** The Facility Manager or designee is responsible for entering data in CMMS by the 15th of each month for the previous reporting period. Upon completion, the applicable reports are printed and routed for the required signatures, then filed in the applicable folder.

The Facility Manager or designee will send an electronic notification to the Regional Facilities Administrator or designee, by the close of business on the 15th of each month, stating the applicable report has been updated in CMMS and is ready for review.

A signed copy of the report is submitted to the Region at the discretion of the Regional Facilities Administrator.

(2) **Regional Office.** Once notification has been received from the institution, the Regional Facilities Administrator or designee will review the reports and provide comments to the institution. The region will print and save (electronically or hard copy) the reports and maintain them for the applicable timeframes.

b. **WPC Reporting.** The Facility Manager or General Foreman will develop WPC meeting minutes and enter the data in CMMS by the close of business on the 15th of the reporting month. Upon completion, the report will be printed and filed in the applicable folder. An electronic copy is provided to the local Union.

Chapter 3. BUILDINGS AND FACILITIES (B&F) PROJECTS

1. DEFINITIONS

a. **Buildings and Facilities (B&F) Funds.** The B&F appropriation is provided for the purchase and acquisition of facilities, new construction at new and existing facilities, renovations, major repairs, equipping such facilities for penal and correctional use, and related necessary expenses. The B&F funds are also provided for construction, remodeling, and equipping necessary buildings and facilities at existing penal and correctional facilities, including all necessary expenses.

B&F funds are “no-year” funds, meaning the funds are available until expended and do not lapse at the end of a fiscal year. Importantly, while the funds do not have time limitations, their use is confined to the basic B&F purposes outlined in the appropriations language as described above and are limited to the term limit policy contained in this chapter. The Program Statement Use of Appropriations is to be followed when utilizing B&F Funds.

b. **New Construction Funds.** This term refers to B&F decision unit 2 funds that Congress appropriates for new facilities’ site planning and construction. These projects are managed by Central Office. New facility construction funds may be reallocated to the new institution to cover specific small construction items that have been approved by the Central Office Project Manager.

c. **Modernization and Repair (M&R).** This term refers to B&F decision unit 3 projects covering the installation or repair of fixed capitalized equipment and repair, improvement, alteration, upgrading, or expansion of an existing facility.

(1) **Repairs and Improvements (R&I).** These are M&R projects funded from regional reserves for the installation or repair of fixed capitalized equipment and repair, improvement, alteration, upgrading, or expansion of an existing facility, and emergency and security-type projects funded by the Regional or Central Office.

(2) **Major Projects.** These are large dollar projects funded by the Central Office for infrastructure needs identified through the Work Programming Committee (WPC), Building and Grounds, and other institution inspections.

(3) **Line Items.** This refers to all projects covering new construction, repair, improvement, or alterations that are provided to the Bureau from Congress through the Federal budget process for a specific purpose.

d. **Architectural and Engineering (A&E).** The emphasis of the M&R program is on infrastructure. Because these are usually large projects that take several years to complete, they are usually funded in two phases: A&E and construction.

(1) **A&E.** The A&E portion of the project will be funded first. A&E funds are available for obligation for 12 months. If the funds are not obligated 12 months from the date the project is approved, the funds are returned to Central Office and the project will be closed.

(2) **Construction.** Once the A&E portion of the project is complete and the construction contract is ready to be awarded, a new project number will be assigned and funds provided to the institution. Construction management costs must be funded from the construction project. The term for construction projects follows the term limit policy contained in this chapter. The cost of the A&E project at the region must be added to the cost of the construction project at the institution to determine whether the project needs to be capitalized or expensed to the institution.

e. **Fixed Capitalized Equipment.** This term refers to assets of a long-term character that are relatively permanent in nature and are intended to be held or used over a number of years. Typical examples of this type of equipment include bake ovens, boilers, deep well pumps, heating/ventilating/refrigeration systems, telephone systems, fuel oil systems, elevators, and other items that are considered to be part of the physical plant.

2. REQUESTS FOR BUILDINGS AND FACILITIES PROJECTS

a. **Master Planning.** Since B&F funds are limited, it is necessary to determine institution requirements and establish priorities to ensure that the most critical needs are met. B&F funds can only be used for the purposes specified in the applicable appropriations statute, and in BOP Program Statement 2310.03. Projects submitted through the B&F budget process should be consistent with the institution's needs. Main considerations are security issues, life safety, Program Review findings, infrastructure, Joint Commission, ACA, and discrepancies found during institution physical plant inspections.

The institution WPC serves as the master planning group responsible for formulating the annual B&F budget submission. Typically, the WPC meets to formulate the annual B&F budget submission before the end of the second quarter of the Fiscal Year (FY) to allow time to prepare the submissions by the due date. For example, a Committee meeting conducted in January or February of the current FY considers Repairs and Improvements (R&I) projects for the next FY and Major Projects for two FYs out.

The WPC is to function as a master planning group considering security issues, life safety, Program Review Findings, and discrepancies found during the institution physical plant inspections, as primary resources in the development of proposed projects and priority lists.

The Facility Manager notifies department heads in writing of the meeting time, place, and purpose a month in advance. The correspondence identifies what actions they should take to have future projects considered and states the Facilities Department can help them prepare the necessary documentation. A copy is kept on file in the Facilities department.

The Facility Manager presents to the Committee the status of the B&F program, including projects in progress, prior year R&I's, major projects, and Line Items expected to be approved for the next fiscal year.

The WPC considers proposed projects and establishes separate priority lists for R&I and Major Projects.

The WPC forwards proposed R&I and Major Projects priority lists to the CEO for final approval. Upon approval, a copy of the priority list is submitted to the Budget and Planning Committee for informational purposes. WPC actions are documented in the meeting minutes.

The approved priority lists and required schedule of cost inputs (including detailed cost estimate) are then submitted to the appropriate Regional Facilities Administrator in accordance with provisions in this Chapter (see the FROG for standard forms).

Major Project and Line Item project requests must be exclusive of proposed projects already included in the R&I submission. Phasing of R&I projects to avoid Line Item project planning is discouraged, as is consolidation of routine maintenance projects (Work Orders) into R&I projects.

b. Project Justifications. Detailed project justifications are to be submitted in the Schedule of Cost Input format, including Major Equipment Justifications as applicable.

A separate schedule of cost input is prepared on proposed R&I projects, up to a maximum of five projects. Major Projects must have a schedule of cost input prepared on proposed projects, up to a maximum of three projects. The completion of Advance Procurement Plans (APP) is to be accomplished consistent with the provisions in the Program Statement **Bureau of Prisons Acquisition Policy**.

Phased projects must be explained thoroughly and be accompanied by a detailed funding plan, broken down by fiscal year.

The Schedule of Cost Input (See FROG for standard forms) must contain a detailed description of what is to be accomplished with the project, a detailed justification for the project, and reliable

cost estimates. Particular attention must be given to the following issues when completing the Schedule of Cost Input:

(1) **Current Conditions.** Provide a detailed justification describing why the project is necessary; be concise, but descriptive enough so the severity of the condition is conveyed, as well as possible consequences if the project is not approved.

Provide complete information; if the project is required in response to an increase in population, indicate the rated capacity and current overcrowding rate. Provide the age of the institution or building and any other relevant facts to support the proposal.

If the request is a continuation of a project started in previous years, the amount previously obligated and total funds required in future years must be included.

(2) **Proposal.** Provide a detailed description of the proposed project, including the size and scope and any unusual conditions.

As an example of size and scope, a “garage addition” should include dimensions of addition, type of building construction (structural design, roof system, etc.), number and type of vehicles to be housed, construction cost per square foot, utility service requirement, and whether it is attached to another building.

Additional conditions include type of existing construction, such as drainage, rock and/or sand to be excavated, accessibility, seismic code requirements, life safety requirements, and environmental issues.

Identify method of accomplishing work, such as contract, in-house, or a combination of contract and in-house labor. Ensure funding object class codes are correctly identified.

(3) **Cost Estimates.** Cost estimates are the total estimated funding for the design and/or construction and the estimated cost of staff salaries, if applicable. This cost includes a general breakdown of the estimated cost by features, such as electrical, plumbing, site preparation, hardware, etc.

All estimated costs must be itemized by object class codes. With approval of the Regional Facilities Administrator, a computerized estimating software program may be utilized.

The requirement for staff supervision, including overtime, escorts, and B&F positions, must be addressed, to include durations. The cost of staff relocation and salaries must be included in overall project cost figures.

(4) **Other Resources.** Justifications must be provided for all equipment and tools to be procured with project funds.

(5) **Energy Consumption.** Each energy consuming system and all components of a building or structure that will affect energy consumption (e.g. windows, insulation) must be chosen based on life cycle cost analysis completed in accordance with the methodology set forth in 10 C.F.R. § 436, as amended.

c. **Due Date.** R&I and Major Projects priority lists and justifications must be submitted to the Regional Facilities Administrator by May 15 of each year. Regional priority lists are due to the Chief, Resource Management, by July 30 of each year. Copies of each list of projects requested from each institution must be included in that submission.

3. OBLIGATION OF FUNDS AND TERM LIMITS FOR M&R PROJECTS

a. **Obligation of Funds.** M&R Project funds must be obligated in Financial Management Information System (FMIS) as follows:

- Emergencies and Equipment Replacement (regardless of funding source) – 6 months from project approval date.
- Regional and Central Office funded – 12 months from project approval date.

If funds are not obligated as identified above, funds will be contra-allotted and the project canceled.

b. **Term.** An M&R project (B&F Decision Unit 3), which is not Congressionally approved, officially reprogrammed, or located at a Regional Office, is to be issued for a term not to exceed three calendar years from its approval date (expiration date). For example: An M&R project with an approval date of December 7, 2015, would have an expiration date of December 6, 2018.

c. **Notice of Expiration.** Three months prior to the expiration date of the M&R project, Facilities Resource Management provides the appropriate Regional Facilities Administrator with a list of projects for the region that will expire. The Regional Facilities Administrator must respond in writing within 30 days of receipt of the list, with the status of each project and the action to be taken; i.e., closure or extension request.

d. **Extension Request.** The Warden, through the Regional Director to the Assistant Director for Administration, may request one extension. The extension request must be made no less than

two months prior to the expiration date of the project. The request will include the following information:

- Explanation for project delays.
- Measures taken to ensure completion within proposed new schedule.
- New completion date.

e. **Approval/Denial of Extension Request.** The request to extend the project expiration date must be either Approved, Approved with Changes, or Denied. If the project is approved or approved with changes, a new final expiration date and possible additional requirements will be included with the approval letter. A copy of this approval letter will be maintained in the project folder. If the extension request is denied, the following will happen:

- The original expiration date will be enforced.
- Closing procedures must be initiated and any remaining funds must be moved out of the project.
- Facilities Management, Central Office, will contra-allot automatically any remaining balance of funds from the project to the Central Office on the three-year expiration date. The Regional Office will be responsible for any deficits after the expiration date.

4. **REGIONAL B&F ADMINISTRATION**

a. **Repair and Improvement (R&I) Funds.** R&I funds are distributed to Regional Offices annually. To ensure fair fund distribution, a point system is used to reflect the facility size and complexity, recent renovations, and present condition:

- One point is assigned to a camp.
- Two points are assigned to an FCI, FDC, FMC, FTC, and MCC/MDC.
- Three points are assigned to an FCI having a camp.
- Four points are assigned to an ADX and USP.
- Six points are assigned to complexes with three or fewer institutions.
- Eight points are assigned to complexes with more than three institutions.

Regional Offices are to distribute project funds to institutions based on project priority lists and justifications submitted in accordance with provisions contained in this Chapter. The distribution of R&I funds from the Regional Office to institutions need not follow the point distribution formula, but may be based on a project-by-project needs assessment. Regional Offices allot funds in accordance with prepared allotment schedules submitted in writing by the institutions, showing object class for each quarter throughout the life of the project.

The Regional Facilities Administrator is to notify institutions in writing of project approval and allotment, delineating project title, project number, and amount approved.

b. **Major Projects.** The Central Office allots Major Project funds to institutions according to the projects identified on the project priority list and justifications submitted in accordance with provisions contained in this Chapter.

Regions are advised of approved Major Projects in writing and in turn advise institutions. Institutions will be notified in writing of project approval and allotment, delineating project title, project number, and amount approved.

c. **Line Item Funds.** The Central Office allots Line Item funds to institutions according to the projects designated in the Public Law for that fiscal year. Institutions will be notified in writing of project approval and allotment, delineating project title, project number, and amount approved.

Central Office allots funds in accordance with prepared allotment schedules submitted in writing by the institutions, showing object class for each quarter throughout the life of the project.

Appropriated funds, including B&F funds, are to be used only for the purposes described in the current appropriations statute.

If a Congressionally approved project is no longer required due to a change of mission or program, the funds must be returned to the Central Office. A request for transferring the funds to another appropriate project may be submitted for consideration:

- The Regional Director must submit a request to the Assistant Director for Administration with a copy to the Chief, Facilities Management Branch, describing the former project and circumstances that eliminated its intended purpose.
- A completed justification describing the new work with detailed cost estimates is to be furnished with the request.
- In many cases, Congressional concurrence must be obtained prior to approval by the Assistant Director for Administration. Funds may not be transferred from the project until the Assistant Director for Administration has provided written approval.

Congressional Line Item projects may not be supplemented more than 10 percent or \$500,000, whichever is less, without written approval from the Assistant Director for Administration. In many cases, Congressional concurrence must be obtained prior to approval by the Assistant Director.

The transfer of funds between Decision Units is not to be accomplished without prior written approval from the Assistant Director for Administration. In many cases, Congressional concurrence must be obtained prior to approval by the Assistant Director.

d. **Emergency Projects.** If the urgent need for a project arises during the year, institutions may submit emergency or special project justifications at any time in accordance with provisions contained in this Chapter. Regions must adjust their R&I budget priorities to accomplish unplanned necessary R&I projects. Regional Offices should maintain R&I reserves to fund emergency projects.

Proposed, unfunded projects that require Central Office assistance are to be handled as follows:

- The Regional Facilities Administrator is to submit a project justification, which fully explains the project requirement, including the Schedule of Cost Input following the R&I procedures, and the project's urgency to the Chief, Facilities Management Branch.
- The Facilities Management Branch reviews the proposal and funding will be identified if approved.

e. Refer to the Program Statement **Use of Appropriations** for the proper use of carryover and B&F funds during the activation phase.

5. REGIONAL B&F FUND ACCOUNTABILITY PROCEDURES

a. **General.** Although the official accountability for B&F funds is the Regional Comptroller's responsibility, the Facilities Administrator must maintain a record of allocations and allotments for reference through FMIS.

b. **Plan/Allotment of Funds.** The document used to authorize a change in the financial plan for a project or an allotment is the B&F Allotment/Plan Revision Request (see the FROG for standard forms). This is a formal request from the Facilities staff to Financial Management to allot B&F funds to an institution for a specific project. Additionally, the Central Office Facilities Management Branch uses this form to allot funds from the Central Office to Regional Offices and institutions. The financial plan is the total amount of funds established for the entire project. For Line Item projects, the plan must equal the appropriated amount unless funds are reprogrammed into or out of the project. For R&I projects, the plan is established at the region. Increases or decreases must be reflected as they occur.

To effect changes in a project plan or allotment, the Facilities Administrator must submit the completed form to the Comptroller. The Comptroller will have the appropriate information keyed into FMIS. It is important that the form be filled out completely and accurately.

This form will also be used to establish allotments for all four quarters of a fiscal year as well as to change an allotment at any given time.

Allotments are made in even dollars except when closing a project.

c. **Financial Management Reports.** The FMIS reports provide detailed information on project funds by Decision Unit, object class, and quarter.

The primary report for monitoring the funds is the FMIS Expenditure and Allotment (E&A) Report. All information on this report is cumulative for the life of the project. Facility Managers must monitor these reports to ensure accurate B&F fund control. It must be noted that the E&A report only reflects the cumulative operating plans through the current quarter.

FMIS reports may be run as needed on an individual project by object class, institution, quarter, etc. A listing of these reports is available from the business office.

d. **Additional Projects.** The B&F Allotment/Plan Revision Request is used to initiate a new project. The Plan is to be keyed in FMIS when the project is numbered and funds are allocated.

e. **Project Number Assignment.** The Chief, Resource Management, in the Central Office assigns project numbers at the request of the Regional Facilities Administrator. B&F project numbers are identified by a combination of letters and numbers.

The following chart illustrates the current letter and number assignments to each region. The letters I and O and the numeral zero are not used.

REGION	NUMBERS	PROJECTS
Mid-Atlantic Region	1	1A1A-1Z9Z
Northeast Region	2	2A1A-2Z9Z
Southeast Region	3	3A1A-3Z9Z
North Central Region	4	4A1A-4Z9Z
South Central Region	5	5A1A-5Z9Z
Western Region	6	6A1A-6Z9Z

6. PROJECT ADMINISTRATION

a. **Construction/Service Contract Documents.** The Regional Facilities Administrator coordinates preparation of construction/service documents, including Statement of Work (SOW),

working drawings, technical specifications, Government cost estimates, and other contract documents for approved projects (other than those B&F/DU2 (Decision Unit 2) projects established to fund UNICOR construction). They may be prepared by institution staff, Regional Office personnel, or an Architect/Engineer (A&E) firm.

The Regional Facilities Administrator and, if required, the Chief, Facilities Programs, must approve all design development and preliminary construction/service documents before purchase of materials, issuance of an invitation to bid on the project, or commencement of construction/service.

When construction documents are prepared, the following guidelines must be followed:

(1) **Statement of Work (SOW).** The SOW should be written in clear, simple terms, preventing more than one interpretation, and must conform to Federal Acquisition Regulation (FAR) Part 11.

(2) **Working Drawings.** Drawings submitted for approval are to be complete, clear, and accurate. Enough details must be provided to give a complete understanding of the project location, scope, and complexity.

(3) **Specifications.** Preparation of specifications is to be coordinated with the institution and/or the assigned Field Acquisition Office's Contracting Officer to ensure that all requirements of Federal Regulations, Federal Standards, etc., are met. Specifications covering work to be performed by contract must state clearly the scope of work and what portion of the work, if any, is to be done by the Government.

(4) **Changes.** Changes from approved construction documents are not to be made without the Regional Facilities Administrator's prior written approval. No changes shall be made to a contract without approval by the Contracting Officer.

(5) **Applications for Payment, A&E Contracts.** A&E applications for payment are to be viewed and signed by the Regional Facilities Administrator, Contracting Officer, and Contracting Officer's Representative (COR), if appropriate. The Regional Facilities Administrator must verify A&E performance/services prior to recommending payment of A&E applications for payment to the Contracting Officer. The verification documentation of A&E performance/services is maintained in the Regional project files.

(6) **Applications for Payment, Construction/Service Contracts.** Contractor applications for payment will be reviewed and signed by the Facility Manager, Contracting Officer, COR, and A&E representative, if appropriate. Processing payment requests through the Regional

Administrator is optional and at that Administrator's discretion; however, the Regional Facilities Administrator must review and sign final payment requests.

(7) **Documentation.** The following documentation must be filed in the appropriate project folder and provided by the Facility Manager with each application for payment that is signed and forwarded to the Regional Facilities Administrator or Contracting Officer:

- Document the Bureau's analyses of the percentage of work completed as compared to the percentage reported on the contractor's payment request.
- Document analyses to verify that the dollar amounts requested by the contractor for each work category are commensurate with the percentage of work completed.
- Verify and document that nonconforming work was corrected prior to approval of contractor payment requests.
- Verify and document approval of contract modifications prior to approval of contractor payment requests, which include the modifications.

Construction/Service contract modifications involving time, money, or scope of work need to be approved by the Regional Administrator before final approval of the modification by the contracting officer.

b. **Construction Supervision.** Facilities staff will supervise projects financed by B&F funds or UNICOR. Staff assigned duties as a COR must complete required certification prior to being assigned to the position.

c. **B&F Construction Personnel Assignments.** Positions assigned to B&F construction projects must be funded from specific project allotments. However, if the majority of a pay period is devoted to a secondary project, the Facility Manager must provide the necessary information to the time and attendance clerk, who will key in the proper accounting code to pay the project position from the secondary project. The Facility Manager must notify the Regional Facilities Administrator prior to obligating salary funds against a secondary project.

All M&R positions are controlled by the Chief, Facilities Management Branch, or designee in the Central Office and are established at institutions as required for particular B&F projects upon the Regional Facilities Administrator's recommendation.

Positions for R&I and Major Projects are established for the duration of a project and abolished at the conclusion of the project. Positions for Line Item projects are established or abolished in accordance with authorization contained in Congressional appropriations.

The Chief, Facilities Management Branch, or designee must approve the re-establishment of positions to another B&F project.

The Regional Facilities Administrator will submit a request to Central Office for any actions concerning B&F positions. The request must be by memorandum to the Chief, Facilities Management Branch, or designee and must include:

- Institution and project number.
- Position title and series.
- Estimated duration of project.
- Justification for position.
- Position establishment date.
- Action to be taken; i.e., abolish/establish, fill vacancy, vacate a position.

Institutions should be aware that B&F positions are assigned only for the duration of the project. If another B&F project position is not available, the institution must absorb these employees into its S&E complement when the project is completed.

Institutions may assign additional qualified institution personnel (S&E) to work on B&F projects, if required. No S&E salary obligations (including escorts and overtime) may be incurred against any B&F project without prior written approval of the Regional Facilities Administrator and Chief, Facilities Management Branch, in the Central Office.

d. Daily Construction Log Book. Facilities staff assigned to the project must maintain a daily log for each assigned B&F and UNICOR project being completed wholly or in part by contractors (logbooks are available through the Regional Facilities Administrator). If contractor involvement in the project is anticipated to be less than 120 hours, a construction logbook is not required unless the Regional Facilities Administrator specifically requests it. The use of a single construction logbook to record work activities for more than one project is not permitted.

The construction log book must be bound, not loose leaf, and contain the following data shown (if “none” is the appropriate entry, this should be so stated) (all fields require an entry; “Not Applicable (N/A)” is acceptable):

- Number of people by trade the contractor and/or Bureau have on site each day.
- Visits to construction site by project A&E firm. Identify individuals by name and title and provide a brief description of visit purpose, including length of visit. In addition, include names and purpose of visit for all other visitors to the construction site.
- Weather conditions, such as temperature, wind, humidity, rain, etc.
- Any unusual facts that could affect the construction progress.

- Any outstanding deviations from the specifications and/or drawings and reasons for such deviations.
- Corrective action taken on any deviations.
- Completion date of phase, such as footings, walls, roofs, utilities, major equipment set, etc.
- Any other facts of relative importance to the project.
- Signature of the staff providing oversight that day.

The Facility Manager or acting Facility Manager must visit B&F project sites and sign the logbook weekly.

When the project is 100 percent complete and closed, it will be indicated on the last completed page of the logbook that this is the “Final Entry”. The daily logbook is retained as part of the completed project file.

e. **Records.** Records regarding B&F projects, other than those established to fund UNICOR construction, are to be maintained as follows:

The Facility Manager maintains an individual file folder for each approved R&I, Major, and Line Item project. Completed project files are to be maintained indefinitely in a secure area for future reference. With the Regional Facilities Administrator’s approval, project files may be stored electronically. The electronic file must contain all information required in the individual file folder and stored as a single electronic folder per project.

B&F File Folders are to follow the File Folder Format in the FROG. File folders (six compartment folders, three ring binders, etc.) are labeled with the identifying project number and title, Work Order number, and include (if required):

- Project request and approval letters/APP.
- Capitalization/Expensed Determination Memorandum.
- Original Schedule of Cost Input (SCI).
- Revised SCI.
- Original cost estimate.
- Revised cost estimate.
- Equipment Justification.
- Copy of B&F Allotment/Allotment Letters/Financial Plan.
- Copy of Construction/Service Contract.
- Photographs/videos.
- Monthly progress reports.
- Request for Project Closure Memorandum.
- Copies of open requisitions.

- Copies of completed requisitions.
- Funding/Expenditures summary.
- Construction Daily Log Book.
- All related correspondence.
- Contract modifications (change orders).
- Applications for payment.
- Drawings/plans/specifications approved by institution, Region, and Central Office.
- Asset Recognition Form(s).
- Post Construction Certification.
- Permits.

The Regional Facilities Administrator must maintain an individual file folder for each approved B&F project at all institutions within his/her region. These files may be maintained in either hard copy or electronic media.

Regional file folders are labeled with the identifying project number and title number and include:

- Project request and approval letters/APP.
- Capitalization/Expensed Determination Memorandum.
- Original Schedule of Cost Input (SCI).
- Revised SCI.
- Original cost estimate.
- Revised cost estimate, if required.
- Equipment Justification, if required.
- Copy of B&F Allotment/Allotment Letters/Financial Plan.
- Monthly progress reports.
- Request for Project Closure Memorandum.
- All related correspondence.
- Contract modifications (change orders).
- Drawings/plans/specifications approved by institution, Region, and Central Office.
- A&E contract.
- Construction/Service Contract.
- Permits.

f. **Records for Projects Established to Fund UNICOR Construction.** Projects for UNICOR are allowed by Congress in the BOP's annual budget. The B&F appropriation, Decision Unit 2, may fund up to the congressionally approved amount for construction of areas for inmate work programs, subject to the availability of funds. The BOP is allowed, but not required, to fund up to the congressionally approved amount, subject to the availability of funds. These projects are

given B&F project numbers, but UNICOR usually handles the contracting. As UNICOR handles a majority of the up-front work, files for these projects need to include:

- Project justification/approval letter.
- Copy of B&F allotment/allotment letters, financial plan.
- Photos/videos.
- Monthly progress reports.
- Request for project closure memo.
- Construction daily log book.
- Related correspondence.
- Drawing, plans, specifications.
- Inspections and permits.

If the Bureau handles the contracting rather than UNICOR, the records required in Project Administration, Section E, apply.

g. **Project Design and Construction Schedules.** When the approved project is entered in CMMS, an estimated Completion Date is entered in the applicable field. The progress of the project is addressed in the monthly narrative.

h. **Construction Progress Reports.** The CMMS project narrative must include:

- Work completed during the reporting month.
- Any issues that may increase the cost of the project or affect the completion date.
- Staff augmentation outside of the facilities department that affects work being completed on the project.

i. **Project Completion.** A B&F project is ready to be closed when all construction, deliveries, and/or cancellations have been completed and no additional obligations, including salaries, will be incurred against the project. Once this occurs, the Project Status will be set to 99% and the Facility Manager will forward a “Request for Financial Closure” to the institution Business Administrator requesting financial close-out. The Request for Financial Closure will list all outstanding credit card charges. The Business Administrator will set up an accrual (if necessary). A copy of this memorandum is placed in the official project file folder, with a copy forwarded to the Regional Facilities Administrator.

The Project Status will be set to 99% in CMMS and the narrative will state:

- “Project work completed, waiting Financial Closure.”
- Date Financial Closure submitted to Financial Management.

Once Financial Closure has been achieved, the project will be closed in CMMS. The project status will be set to 100% and the Narrative will include the words “Final Report.”

j. **UNICOR Funded Projects.** All UNICOR-funded projects must meet the same criteria and follow the same procedures required in this chapter.

k. **Trust Fund Projects.** Funds for Trust Fund buildings or renovations are approved by the Chief, Trust Fund Branch, and Central Office. The Chief, Facilities Programs, must review and approve all designs that alter the physical plant.

7. **REPORTING**

a. **Master Planning Reporting.** The WPC actions are documented in the meeting minutes of the WPC Report, per Chapter 2.

b. **B&F, Trust Fund, and UNICOR Projects**

(1) **Institution.** The Facility Manager or General Foreman is responsible for entering monthly progress data in CMMS by the 15th of each month, for the previous reporting month. Upon printing the B&F Monthly Report, it is to be routed for required signatures, then filed in the applicable project folder. A B&F Monthly report must be maintained for the life of a project.

The Facility Manager or General Foreman will send an electronic notification, by the close of business on the 15th of each month, stating the B&F Projects have been updated in CMMS and are ready for review.

A signed copy of the B&F Monthly Report is submitted to the Region at the discretion of the Regional Facilities Administrator.

(2) **Regional Office.** Once notification has been received from the institution, the Regional Facilities Administrator or designee will review the B&F Monthly Reports and provide comments to the institution. The region will print and save (electronically or hard copy) the B&F Monthly Reports and maintain them in a separate project folder.

Chapter 4. ARCHITECT - ENGINEER (A&E) SERVICES

1. POLICY SUMMARY

The acquisition of Architect-Engineer (A&E) services must be in accordance with the current Federal Acquisition Regulation (FAR).

2. REFERENCES

Applicable portions of the FAR implement 40 U.S.C. § 541-544.

- FAR, Part 36 – Construction and Architect-Engineer Contracts, Subpart 36.6 – Architect-Engineer Services.
- FAR, Part 5 – Publicizing Contract Actions.
- FAR, Part 15 – Contracting by Negotiation.
- FAR, Part 52 – Contract Clauses.

3. PROCUREMENT OF A&E SERVICES

Procurement of A&E services will be accomplished at the Regional level for the institutions located within its geographical area. The Chief, Facilities Management Branch, or designee will acquire and maintain A&E service contracts necessary to satisfy nationwide Central Office-managed programs and projects.

Evaluation and selection of firms for A&E services will be accomplished through evaluation boards and the designated selection authority, in accordance with FAR 36.

A designated Contracting Officer is to conduct negotiation with A&E firms.

4. RESPONSIBILITIES

a. **Regional Facilities Administrator.** It is the Regional Facilities Administrator's responsibility to retain an indefinite quantity services contract for A&E services. This contract will include a professional environmental services firm to address all environmental issues in the respective region, such as environmental assessments, environmental audits, environmental remediation, environmental impact statements, etc.

b. **Project Manager.** All A&E projects are to be assigned to a Project Manager. Unless otherwise designated by the Chief, Facilities Management Branch, the Project Manager is to be

the Regional Facilities Administrator for each region and the Chief, Facilities Programs, for nationwide projects.

The assigned Project Manager may delegate the role of Project Manager to a qualified member of his/her staff. Different Project Managers may be assigned for different phases of a project.

The Project Manager is responsible for determining project requirements, including the need for A&E services and for coordinating activities related to acquiring these services. The Project Manager serves as the COR to the extent that such authority is delegated.

c. **Contracting Officer.** Contracting Officers for all A&E contracts must be a Central Office Contract Specialist.

Contracting Officers are responsible for directing and negotiating all changes (monetary and non-monetary) to the contract. This authority may not be delegated to the Project Manager or any of the Project Manager's representatives.

5. EVALUATION/SELECTION CRITERIA

Evaluation of potential A&E firms must be in accordance with the selection criteria outlined in FAR 36.6.

6. EVALUATION BOARDS

Re: FAR, Subpart 36.6, 36.602-2, 36.602-71. – Evaluation Boards

Evaluation board members for A&E services must be appointed by Regional Directors (for institutions and Regional Offices). Members appointed must collectively have the requisite experience and technical competence in architecture, engineering, construction, and related acquisition matters to enable effective evaluations. Evaluation boards consist of a minimum of two members, one being the Regional Facilities Administrator or designee, who may serve as Evaluation Board Chairperson.

The Chief, Facilities Management Branch, or designee is to chair the A&E Evaluation Board for each Central Office project and appoint two to four additional members to such boards.

7. EVALUATION BOARD FUNCTIONS

Under the general direction of the assigned contracting officer, the Evaluation Board functions per FAR 36.602-3 and 15.609 and the following:

Interviews must be scheduled with the firms selected. As deemed appropriate by the Technical Evaluation Board Chair, telephone interviews may be conducted in lieu of formal face-to-face meetings. Telephone interviews meet the definition of “discussion” in FAR part 36.

Each firm is to be informed of what is expected during the interview (length of interview, informal discussion or formal presentation, introduction of personnel, points or areas of interest to be addressed, types of evidence of qualifications desired, etc.).

Each firm is to be furnished any additional information available regarding the proposed project, such as the scope of the program, site information, construction budget, schedule, and draft of proposed contract, if available.

Interviews should normally be conducted in the firms’ offices by at least three evaluation board members.

Using the appropriate evaluation forms (see the FROG for standard forms) and through independent assessments and collective discussions by its members, the Evaluation Board recommends, in order of preference, at least three firms considered to be the most highly qualified to perform the required services.

The chairperson prepares a selection report, to include a summary description of the Board’s discussions and evaluation. Copies of the forms for the evaluation and interviews are to be attached to the report.

8. SELECTION AUTHORITY

The selection authority for all Bureau A&E contracts is the Chief, Facilities Management Branch. Selections are to be made in accordance with FAR, 36.602-4 (Selection Authority).

Upon Central Office review of regional Evaluation Board submissions by the Chief, Facilities Programs, the selection authority must review the Evaluation Board’s recommendations and make the final selection of the firms considered most highly qualified to perform the work. Appropriate staff in the Procurement Branch have 30 business days to review.

If the firm listed as the most preferred by the selection authority is not the one the Evaluation Board recommended as the most highly qualified, the selection authority must provide a written explanation for the preference.

If the firms recommended in the report are not deemed qualified or the report is considered inadequate for any reason, the selection authority must record the reasons and return the report to the Evaluation Board chairperson for appropriate revision.

The approved final selection list is to be sent to the Evaluation Board chairperson and then forwarded to the Contracting Officer.

9. EVALUATION/SELECTION DOCUMENTATION

Records of all decisions and copies of all correspondence must be maintained to reflect the entire selection process. These records will become part of the entire contract file and must be maintained in a logical and chronological sequence. The file must include the results of the Evaluation Board and the individual members' reports.

10. GOVERNMENT COST ESTIMATE

Re: FAR 36.605 (Government Cost Estimate for Architect- Engineer Work).

The Project Manager must prepare and furnish to the Contracting Officer an independent Government estimate of the cost of A&E services for any proposed contract action, regardless of dollar value. The estimate is to be furnished to the Contracting Officer before commencing negotiations with a selected firm.

The estimate is to be developed from a detailed analysis of the required work as though the Government were submitting a proposal. It is to be prepared using GSA-2630 and 2631 or comparable formats.

The A&E firm is required to submit a proposal, using GSA-2630 and 2631 or comparable formats, to expedite comparisons between it and the Government estimate during the negotiation process.

Access to information concerning the Government estimate is to be limited in accordance with FAR 36.605(b).

11. NEGOTIATIONS

Re: FAR 36.606 – Negotiations and FAR 15. 404 – Contracting Officer Responsibilities, (d)(1)(ii). FAR 15.404-4(c)(4)(i)(B):

“For architect-engineering services for public works or utilities, the contract price for the estimated cost and fee for production and delivery of designs, plans, drawings, and specifications shall not exceed six percent of the estimated cost of construction of the public work or utility, excluding fees.”

Unless otherwise specified by the selection authority, the final selection authorizes the Contracting Officer to begin negotiations.

The Project Manager or a designated representative must attend negotiations to assist the Contracting Officer. However, the Contracting Officer is responsible for conducting negotiations.

Before final contract approval, the terms must be acceptable to both the Project Manager and the Contracting Officer.

12. MANDATORY CONTRACT TERMS

Re: FAR 36.609 - Contract Clauses

The Contracting Officer must insert the clauses determined necessary by the contract, and they must be included in the solicitation documents.

General Requirements. The Government has full rights and privileges to use all documents prepared under this contract:

- All designs, drawings, specifications, notes, and other work developed and submitted in the performance of this contract become the property of the Government.
- The Government may use any or all of these products on any other Government design or construction without additional compensation to the A&E.
- The Government is to be considered the “person for whom the work was prepared” for the purpose of authorship in any copyright work under Section 201 (b) of Title 17, United States Code.
- With respect thereto, the A&E agrees neither to assert nor authorize others to assert any rights or establish any claims under the design patent or copyright laws.
- The A&E firm hereby grants to the Government a paid-up license throughout the world to all such work to which it may assert or establish any claim under design patent or copyright laws.

- For a period of three years after completion of the project, the A&E agrees to furnish copies of all such work on the request of the Contracting Officer (the A&E is to be reimbursed for the cost of such items).
- A qualified Fire Protection Engineer must review and approve all designs, drawings, and specifications. A post-construction certification must be provided stating that construction meets all current Life Safety/Fire Protection requirements.
- A qualified elevator inspector must inspect all elevators, dumbwaiters, and wheelchair lifts, whether institution- or UNICOR-owned, using approved state regulations and/or (ASME/ANSI A17.1 – 2013) or the latest guidelines and checklist.
- All designs, drawings, and specifications for construction covered by Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction (as amended), must be designed to meet or exceed the design requirements set forth in the current version of the International Building Code.
- Selection of systems pertaining to aspects of new construction that have an effect on energy consumption must be chosen based on life cycle cost analyses completed in accordance with methodology set forth in 10 C.F.R. § 436.
- All designs must be developed in accordance with the International Building Code, the 2006 Architectural Barriers Act Guidelines, or the most current regulations on accessibility of Government buildings.

13. PERFORMANCE EVALUATIONS

Re: FAR 36.604 and FAR 42.1502(f)

Past performance evaluations must be prepared for each architect-engineer services contract/task order of \$30,000 or more, and for each architect-engineer services contract that is terminated for default regardless of contract value. Past performance evaluations may also be prepared for architect-engineer services contract/task orders below \$30,000, per the request of the contracting officer.

Chapter 5. PREVENTIVE MAINTENANCE/INSPECTIONS

1. RESPONSIBILITY

The Bureau has a substantial investment in the physical plant of its various institutions. It is the Facilities Department's responsibility to maintain these physical plants to ensure maximum life cycle use and to ensure the reliability of the various systems and components.

The Facility Manager must develop a maintenance, inspection, and testing program. This program must comply with all applicable Bureau policies, National Fire Protection Association (NFPA) standards, manufacturer recommendations, industry standards, and applicable Federal, state, or local codes and regulations.

2. DEFINITIONS

For the purposes of this Manual, an **asset** is defined as a piece of equipment or system that is more cost-effective to maintain than to replace. This includes capitalized fixed equipment, non-capitalized equipment such as vehicles, landscape equipment more than 50 HP, communications equipment, food service equipment, etc. All assets must have a permanently affixed identification tag.

Preventive Maintenance (PM) Work Orders are utilized to establish the appropriate procedure and frequency to maintain a specific piece of equipment or asset group.

Planned Event (PE) Work Orders are utilized to establish the appropriate procedure and frequency to maintain a "system" and conduct an inspection or test. A PE can also be created as a reminder to complete a particular procedure. A PE will not be utilized to conduct corrective maintenance that is typically addressed via Work Orders.

3. PREVENTIVE MAINTENANCE

Each institution must use CMMS to schedule and track preventive maintenance, inspections, and test activities.

Preventive Maintenance work should be scheduled by the Facility Manager so that staff time is used effectively to accomplish each procedure as outlined in this Chapter. The frequency with which PMs are issued is important to the Preventive Maintenance program's credibility. Preventive Maintenance Work Orders are to be completed within their established frequency (weekly, monthly, quarterly, etc.) and submitted for closure in CMMS. If repairs can be made at the time the PM/PE is completed, then a Work Order does not need to be generated. When

completing the PM/PE's in CMMS, ensure staff time charges, date work completed, relevant completion comments, and all materials, regardless of which cost center supplied the materials, are entered accurately on the PM/PE and in CMMS. The minimum acceptable completion rate for PM/PE's is 80 percent.

PM/PE's must be completed in CMMS per the following:

- Frequency of Monthly or less – 30 days from the date created.
- Frequency greater than Monthly, but Quarterly or less – 90 days from the date created.
- Frequency greater than Quarterly – 120 days from the date created.
- Any multiple PM Work Order for an asset or asset group must be completed based on the shortest frequency associated with the Multiple PM, as listed above.

Any PM that is scheduled based on a meter reading must also have a calendar date associated to the template, in the event the meter reading is not being updated in CMMS. Note: if you are using the meter option in CMMS, the meter reading must be updated monthly, at a minimum.

a. **Food Service and Laundry Equipment Maintenance.** Each Facility Manager is responsible for ensuring all major equipment (e.g., refrigeration units, kettles, steamers, ovens, fryers, dishwashers, pot and pan washers, clothes washers, and dryers) in food service and laundry are entered in CMMS with the proper procedure and proper frequency. All gas-fired and grease-producing Food Service and Laundry equipment must be on Monthly PM frequencies. Equipment must be maintained to comply with NEC and NFPA 96 requirements.

The appropriate department head is to purchase materials necessary for repairs incurred on food service and laundry equipment.

b. **Annual Food Service and Laundry Equipment Update.** Each year by September 1, the Facility Manager or designee will update the asset masters in CMMS on all major food service and laundry equipment. At a minimum, the following items on the asset master will be addressed:

- Manufacturer, model, and serial number.
- Replacement cost.
- Physical condition.
- Physical condition comments (a physical condition code of 3 or 4 requires a comment).
- Total material costs to date. All materials, regardless of cost center, must be applied to the equipment as maintenance occurs.

c. National Paving/Roofing Program Equipment. The equipment shall be maintained per manufacturer recommendations. When the equipment is deployed from the National Bus Center or home institution, monthly PM/PE's are not required. All semi-annual and annual inspections must be completed by the National Bus Center.

4. INSPECTIONS AND TESTS

The inspections and tests outlined in each chapter are required to be completed per the indicated cycle and documented in CMMS. Each entry into CMMS ensures timely notification and scheduling. Prior approval is required from the Regional Facilities Administrator to deviate from the established inspection cycle. All inspection cycles are to be completed per the latest edition of applicable laws, codes, standards, etc. Refer to the FROG for a list of typical inspections. This list is not all-inclusive due to the fact inspection requirements vary for each institution. The Facility Manager is responsible for ensuring that all applicable inspections required by policy, laws, codes, regulations, and referenced standards are completed and documented per the requirements of this chapter.

Once the inspection is completed, the Facility Manager or designee must review and prepare the inspection report by completing the following steps, as applicable (see the FROG for standard forms/format and submission requirements):

- Review the inspection report and address all identified deficiencies by creating a minor Work Order to describe the plan of action for making repairs for EACH deficiency. The Work Order is the plan of action.
- Inspections, test reports, and plans of action must be submitted to the Region at the discretion of the Regional Facilities Administrator.
- If required, prepare a memorandum for the Regional Facilities Administrator's review and approval. Include the date(s) the inspection was completed, the date the inspection report was received, and the number of deficiencies identified. The Facility Manager must submit the inspection file electronically to the Regional Office within 30 days of receiving the inspection report. The file must include the memo, inspection report, and Work Orders.
- The inspection file, which includes all applicable documentation, will be retained in the institution Facilities Department for 36 months, then archived (see the FROG for Document Retention). Include the cost of the inspection on the PE and enter it in CMMS.

All documentation of testing and inspections is maintained in the Facilities Office and is available to all departments for review.

a. **Elevator Testing and Inspections.** A qualified elevator inspector must be hired to perform the Annual, Five Year, and other tests or inspections required by AMSE/ANSI (latest edition) or local requirements:

- **Annual Test.** The annual test includes elevators, dumbwaiters, and wheelchair lifts, whether institution- or UNICOR-owned.
- **Five Year Test.** The five-year test includes all **traction-type** elevator safeties and governors only, and is to be performed under the full rated load capacity for the elevator. It is mandatory that the special metal inspection tag(s) be permanently attached to the elevator, giving the date of the test and the name of the person or firm who performed it.
- Any other state/local testing and/or inspection requirements that supersede Federal requirements.

b. **Annual Buildings and Grounds Condition Assessment.** All areas of the institution must have a documented visual inspection annually, utilizing the form located in the FROG. The Facility Manager may assign subject matter experts to assist in performing the inspection. The manager is responsible for the final results. When documenting comments on the inspection report, be clear and concise as to the conditions found; “yes and no” answers are not sufficient. If the step is not applicable, “N/A” is an acceptable entry. All deficiencies must be addressed via Work Order, emergency B&F Project request, or annual Master Planning.

Chapter 6. AUTOMATED SYSTEMS AND DOCUMENT CONTROL

1. COMPLIANCE

The Facility Manager is responsible for collecting, recording, and communicating data relative to all aspects of the physical plant management program.

This Chapter's purpose is to provide directions for using the designated Computerized Maintenance Management Systems (CMMS) and other approved facilities management software.

The Facility Manager and designee must have a working knowledge of each software program being used in the Facilities Office. New acquisitions or upgrades of existing computers must conform to current Bureau policies and minimum operating requirements. Computers must be configured to allow facilities staff to operate systems applicable to the departmental operating systems, such as but not limited to cameras, radios, and building management systems.

Regional Facilities offices are to provide technical support, training, and troubleshooting of systems for institutions.

Sensitive security information entered into any computer program must be treated as "SENSITIVE." Any sensitive and/or security information that is stored on electronic media must adhere to the Program Statement **Information Security Programs**.

The standard CMMS currently used by the Bureau is Total Maintenance System "TMS" copyrighted by Four Rivers Software Systems, Inc., An Accruent Company. Any other software utilized as a CMMS must be approved by the Chief, Facilities Management Branch.

2. REQUIRED SOFTWARE PROGRAMS

To provide consistent data throughout the Bureau, Facility Departments must use Bureau-approved and -supported software. New purchases and upgrades of software must be the newest version available. Following is the standard software to be used by the Facilities Department:

- **Budget Control Software.** Budget tracking is done using the official Bureau Fund Control System as issued by the Budget Execution Branch, Central Office.
- **AutoCAD.** The AutoCAD software program, by AutoDesk, is the standard program for computer-aided drafting. Facilities requiring limited design and drafting capabilities may use the AutoCAD LT software. With the Regional Facilities Administrator's approval, alternate

Computer Aided Design (CAD) Software may be utilized as long it has the ability to convert drawings into .pdfs.

- **Estimating Software.** Estimating software may be used to develop in-house cost estimates. The Regional Facilities Administrator determines which software will be used in his/her region.

3. **DOCUMENT CONTROL**

The Facility Manager is responsible for ensuring that sensitive documents are maintained in a secure area and not available to inmates. The Facility Manager must develop a filing system to ensure sensitive information is properly stored and controlled. Sensitive drawings, specifications, product literature, and other sensitive documents must be stamped “**SENSITIVE BUT UNCLASSIFIED**” or “**SBU**”.

All staff and contractor personal information must be maintained in accordance with the Privacy Act of 1974.

Architects, engineers, and contractors doing work for the Bureau may be given information related to institution security. The Bureau requires the holder of sensitive documents to exercise reasonable care related to the dissemination, storage and handling, and destruction of “Sensitive But Unclassified” documents. To ensure chain of custody is followed when distributing/sharing sensitive documents, the FBOP Document Security Notice (see the FROG for standard document) must be completed and maintained on file.

Records are to be retained or disposed of as outlined by the Program Statement **Records and Information Management Programs** or as noted in other sections of this policy (see the FROG).

Chapter 7. LIFE SAFETY/FIRE PROTECTION

1. GENERAL

The Bureau must comply with all applicable National Fire Protection Association (NFPA), National Fire Codes (NFC), the International Building Code (IBC), and the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**. Where differences exist between the requirements of the NFPA, NFC, IBC, and policy, the more stringent requirement applies. The National Fire Codes impact fire protection and life safety in all institution areas. Multiple NFPA codes are applicable to an institution setting. These include, but are not limited to, the Automatic Sprinklers Systems (NFPA 13); Standards for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (NFPA 25); National Fuel Gas Code (NFPA 54); National Electrical Code (NFPA 70); National Fire Alarm and Signaling Code (NFPA 72); Life Safety Code (NFPA 101); etc. All institutions, Regional Offices, and Central Office, at a minimum, must have copies of NFPA 13, 25, 70, 72, and 101 (latest editions). Electronic/internet versions are acceptable.

Systems that complied with the code when installed are considered to be in compliance (grandfathered), as long as no modification or reconstruction has taken place that would require an upgrade to the system as described in NFPA 101.

Variance Requests. All Life Safety variance requests must be submitted in writing from the Regional Director to the Authority Having Jurisdiction (see the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**), and copies provided to the Chief, Facilities Programs, Central Office.

2. CONSTRUCTION REQUIREMENTS

The institution Facility Manager and Environmental and Safety Compliance Administrator must review all plans for new construction, alterations, and renovations affecting life safety and fire protection. Once reviewed, the documents will be forwarded to the Regional Facilities Administrator for approval. Based on the scope of work, the Regional Facilities Administrator will determine if the proposed work requires review and approval by a qualified fire protection engineer, as defined by C.F.R. Title 41.

a. **Post-Construction Reviews.** Upon completion of new fire protection systems and/or construction affecting Life Safety issues (Fire Suppression, Detection and Alarm Systems, Fire Rated construction, means of egress, etc.), the Regional Facilities Administrator (or designee), licensed contractor, or qualified engineer must inspect the work to ensure it complies with the construction documents and all applicable codes. Post-construction reviews are to be completed

prior to the area being occupied. All inspections must be documented in writing and maintained in the applicable project file. Once construction is completed, a copy of the as-built documents will be maintained on file.

On small-scale renovation or construction projects, the Regional Facilities Administrator has the authority to waive the post-certification. A copy of the justification to waive the certification is filed in the project folder.

b. Flame Spread And Smoke Generation Requirements. All construction materials used in renovation and new construction must comply with the flame spread and smoke generation requirements of all applicable codes. Materials include, but are not limited to insulation/insulation facing, wire/cable coatings (if not in conduit), and plastic piping, paint, carpet, curtains, wall coverings, paneling, sheetrock, ceiling coverings, air plenum material, doors, etc. The institution must have a written certification that the material meets or exceeds these requirements. The certifications are filed in the appropriate Project or Work Order Greater Than \$10,000 folder.

3. PREVENTIVE MAINTENANCE, INSPECTIONS, AND TESTING

Preventive maintenance, inspections, and tests are to be performed per applicable codes and manufacturers' recommendations, and scheduled in CMMS. Refer to the FROG for NFPA-required inspections and tests. Refer to Chapters 5 and 9 for additional preventive maintenance, inspection, and testing requirements.

Fire suppression system inspections and testing shall be conducted and documented in accordance with NFPA 25 (latest edition) and applicable policies. Refer to the FROG for a list of typical inspections and tests. A qualified outside contractor shall perform the required NFPA 25 annual inspection. All fire suppression system inspections shall be entered into CMMS. All inspection reports shall be maintained according to the Records and Information Disposition Schedule (RIDS).

All discrepancies identified during inspections must be documented per Chapter 5. If the discrepancy must be corrected immediately, it is assigned as a Priority 1 Work Order. If the discrepancy requires B&F funding, documentation must be provided to ensure inclusion in the institution B&F Master Planning (see Chapter 3). Once B&F funding is available, corrective work commences immediately.

Chapter 8. ENVIRONMENTAL

1. GENERAL

The purpose of this chapter is to provide guidance on environmental issues related to Facilities operations, maintenance, repair, renovations, and construction. Refer to the Program Statements **Occupational Safety, Environmental Compliance, and Fire Protection**, and **Environmental Management System** for all environmental policy requirements.

The Facility Manager must be aware of all Federal, state, and local environmental codes, regulations, and laws that apply to his/her institution. Environmental laws are complex, numerous, and ever-changing. The U.S. Environmental Protection Agency (EPA) has granted many states the authority to manage their own environmental programs. These state programs may be more stringent than Federal program requirements. If questions arise as to which regulations and laws apply, the Facility Manager will ask for written clarification from the institution's Environmental and Safety Compliance Administrator (ESCA). If the ESCA is unsure, the ESCA will ask for written clarification from the Chief, Environmental Compliance Section, National Environmental & Safety Compliance Branch, Central Office.

The Facility Manager and General Foremen must ensure that facilities staff are aware of, and comply with, all applicable environmental policies, regulations, and laws. These include, but are not limited to, inspections, testing, fleet maintenance and operations, equipment repair/replacement, confined spaces, spills, storage tanks, material handling, storage, landscaping, water and sewage treatment, utilities, universal wastes (batteries, lamps, pesticides, etc.), hazardous wastes, air permits, Spill Prevention and Countermeasure Control plan (SPCC), etc.

All facilities staff will receive training on environmental programs related to their assigned duties. Refer to the Program Statements on **Occupational Safety, Environmental Compliance, and Fire Protection** and **Environmental Management System**. In addition, the Facility Manager will ensure staff receive mandatory training in accordance with all Federal, state, and local environmental codes, regulations, and laws applicable to their institution.

Facilities and institutional operations have an impact on the environment and surrounding communities. Facilities staff should take into account the environmental impacts of their operations and work toward control and minimization of those impacts. The National Environmental Policy Act of 1969 (NEPA) ensures that agencies take environmental factors into account when considering Federal actions (new construction, major renovations, civil improvements, etc.). NEPA does not mandate protection of the environment. Instead, it requires

agencies to follow a particular process in making and documenting decisions. To assist in this process, a NEPA checklist is provided in the FROG.

The Facility Manager is a member of the institution's EMS Committee and ensures departmental conformance with EMS requirements. The Facility Manager must refer to the Program Statement **Environmental Management Systems** to fulfill the Facilities Department's responsibility and role in the EMS Program.

2. NEW ACTIVITIES WITH AN ENVIRONMENTAL IMPACT

Prior to undertaking any new activities that may have an environmental impact, the Facility Manager must contact the Regional Facilities Administrator to discuss these issues. This includes the replacement or installation of any equipment that may require a permit (boilers, generators, chillers, storage tanks, storm water, etc.). Should the Regional Facilities Administrator need further technical guidance, the Administrator should contact the Chief of Facilities Programs or the Chief, Environmental Compliance Section, National Environmental & Safety Compliance Branch. The EMS Committee must also be made aware of any new activities with a potential environmental impact, per the Program Statement **Environmental Management Systems** and the institution's written EMS program.

3. INTERACTIONS WITH REGULATORS

The Facility Manager must notify the Regional Facilities Administrator or designee of any planned or unplanned institution visits from regulatory agencies or companies contracted by a regulatory agency.

The Facility Manager must report all environmental and occupational health violations or concerns noted by regulatory agencies or companies contracted by a regulatory agency to the institution's ESCA, the Regional Facilities Administrator, and the Chief of Facilities Programs within 48 hours of becoming aware of the issue(s). Once the Facility Manager receives the written documentation from the regulatory agencies or contractor, a copy must be submitted to the institution's ESCA, local Union, Regional Facilities Administrator, Chief of Facilities Programs, and the Associate General Counsel, Real Estate/Environmental Law Branch, Central Office, within 48 hours.

Prior to sending a response to the regulatory agency or contractor, a copy of the institution's plan of action and response must be submitted to the Regional Facilities Administrator, Chief of Facilities Programs, and the Associate General Counsel, Real Estate/Environmental Law Branch, for review. Once the response is finalized, a copy is provided to the Regional Office, Central Office, and the institution/regional legal counsel.

4. INSPECTIONS

All environmental-related inspections must be entered into CMMS. See the FROG for typical inspections. This list is not all-inclusive; there may be state and local inspection requirements specific to your institution.

5. PERMITS

The Facility Manager will enter procedures in CMMS to review all permits, at a minimum 6 months prior to the permit's resubmission/expiration date. Six months is a minimum; some permits could require up to 18 months to be processed. See each permit for specific requirements. The Facility Manager must ensure that the conditions of all permits are adhered to.

6. ASBESTOS

All institutions that are known to have asbestos containing material are to provide a report to Central Office quarterly. The report shall include information on newly discovered asbestos, and all abatement activities. Backup information (receipts, invoices, credit card statements, etc.) shall be included in the report.

Chapter 9. TELECOMMUNICATIONS SYSTEMS AND ELECTRONIC EQUIPMENT

1. GENERAL

This section pertains to various types of telecommunications and security electronics systems used throughout the Bureau. Acquisition of all telecommunications and security electronics must be in accordance with the Federal Acquisitions Regulation (FAR).

The design, installation, testing, and operation of all security electronics systems and equipment throughout the Bureau must be consistent with current policy, Federal regulations, bulletins, and industry standards, including, but not limited to:

- NFPA 101 – Life Safety Code.
- NFPA 72 – National Fire Alarm Code.
- NTIA – National Telecommunications and Information Manual Administration.
- EIA/TIA – Electrical Industry Association/Telecommunications Industry Association Standards.
- C.F.R. Title 47– Telecommunications.
- Department of Justice (DOJ) Order 2640.2D, Information Technology Security.
- Program Statement **Correctional Services Procedures Manual**.
- Program Statement **Electronic Technician Trainee Developmental Program**.
- BOP Divisions 27 and 28 Model Documents.
- BOP Technical Design Guidelines Divisions 27 and 28.

2. RESPONSIBILITIES

a. **Central Office.** The Chief, Facilities Operations, is responsible for the overall administration of telecommunication systems and security electronics equipment at all Bureau institutions and Regional Offices. These responsibilities include:

- Providing to Regional Facilities Administrators consultation and guidance in the overall administration of activities related to telecommunications and security electronics systems in new and existing facilities.
- Providing assistance in planning and engineering support for security electronics systems for new facilities.
- Researching, assisting, and clarifying regulations at the request of the Regional Facilities Administrator.
- Reviewing requests for the purchase of electronic equipment totaling greater than \$25,000 and providing the region and institution written approval or disapproval. Serving as a point of contact for the DOJ Interagency Radio Advisory Council (IRAC) representative.

- Assisting Contracting Officer in administering National Maintenance Contracts.
- Reviewing the Monthly Perimeter Detection data in CMMS.
- Assisting Contracting Officer in ordering and approving voice/data communication services as requested and in compliance with Service Level Agreements and/or Interagency Agreements.
- Reviewing and evaluating existing telephone services throughout the Bureau to ensure that effective maintenance and operating practices are in place.
- Researching and clarifying Fire Alarm Regulations at the request of the Regional Facilities Administrator.

b. **Regional Office.** The Regional Facilities Administrator is responsible for the overall administration of telecommunication systems and security electronics equipment within his/her regional area of responsibility. These responsibilities include:

- Providing support and guidance to the Facility Manager in developing and maintaining an effective planning program for all telecommunications systems, security electronics systems, and fire alarm systems.
- Evaluating recommendations from institutions for fire alarm systems and forwarding that information to the Chief, Facilities Operations.
- Reviewing all requests for the purchase of electronic equipment totaling greater than \$10,000 for technical compliance. Providing written approval or disapproval of all requests for the purchase of electronic equipment totaling \$10,000 to \$25,000. For purchases greater than \$25,000, submitting to Chief, Facilities Operations, with a recommendation to approve or disapprove the request.
- Notifying the Chief, Facilities Operations, when any major telecommunications or security electronics systems are not operational for over 48 hours.
- Providing radio communications and/or radio frequency management information to the Chief, Facilities Operations, when requested.
- Assisting the institution in coordinating local interagency agreements for shared radio frequency assignments.
- Requesting the Chief, Facilities Operations, for new and/or additional frequency requests to use or amend use of the radio frequency spectrum.
- Reviewing the Monthly Perimeter Detection data in CMMS and notifying the institution the data was reviewed and guidance is provided as necessary.
- Coordinating with the Local Exchange Carrier (LEC) when installing, modifying, and/or repairing telephone equipment and services at the Regional Office.
- Submitting requests to the Central Office for installation of new Networkx service or changes to existing Networkx services.
- When requested, providing guidance and support to the Facility Manager in developing an effective program.

c. **Facility Manager.** The Facility Manager is responsible for managing the telecommunications and security electronics equipment. These responsibilities include:

- Notifying the Regional Facilities Administrator when the Perimeter Detection System or any component of the system is not operational for more than 24 hours.
- Notifying the Regional Facilities Administrator when any major telecommunications or security electronics system is not operational for more than 48 hours.
- Prior to purchase, forwarding requests totaling over \$10,000 to the Regional Facilities Administrator for technical compliance review and approval. The request must include a memorandum (see the FROG for example) from the Facility Manager to the Regional Facilities Administrator and a copy of the Request for Purchase. Maintain approvals and disapprovals on file. Requests are only required to be submitted for new systems and equipment that is not compatible with existing systems. Approval for replacement equipment for existing systems is not required.
- Responding to requests for radio communications and/or radio frequency management information from the Regional Facilities Administrator.
- Submitting requests through the Regional Facilities Administrator to the Chief, Facilities Operations, for additional radio frequency assignments (see the FROG for forms).
- Prior to the purchase of any electronic equipment (including wireless devices), regardless of Cost Center, forwarding Requests for Purchase to the Facilities Department for review by the Facility Manager and Electronics Technician (Technician).
- Coordinating with the Local Exchange Carrier (LEC) when installing, modifying, and/or repairing telephone equipment and services at the institution.
- Submitting requests to the Regional Office for new Network service or changes to the existing Network service at the institution.
- Providing training to staff end users on various communications and security electronic systems.
- Institutions may be given the opportunity to have an Electronic Technician Trainee. Training and reporting requirements for the trainee must comply with the Program Statement **Electronic Technician Trainee Developmental Program.**
- Responsible for the operation, inspection, and maintenance of fire alarm systems in compliance with NFPA 72.
- Developing an Institution Supplement for the following:
 - To define the procedures of the Monthly Controlled Operational Testing of perimeter detection systems.
 - To define reporting procedures for notifications of security system outages, in accordance with this chapter.

- To define the maximum extent that inmate labor may be used on any telecommunications or security electronics system. At a minimum, no inmate labor may be used to install or maintain radio and perimeter detection systems.

d. **Electronics Technician.** The Technician's duties include the following:

- Coordinating the installation, maintenance, testing, and labeling of all fixed data communication cable infrastructure between the wall jack and the patch panel.
- Prior to the purchase of any electronic equipment (including wireless devices), regardless of Cost Center, forwarding Requests for Purchase to the Facilities Department for review by the Facility Manager and Technician.
- Maintaining and controlling the radio system infrastructure and all radio system programming and software.
- Maintaining and testing the perimeter detection equipment.
- Completing and submitting Monthly Perimeter Detection System Work Orders.
- Responsible for fire alarm system compliance per NFPA 72.

3. ELECTRONICS TECHNICIAN TRAINING

a. **Mandatory Factory Training.** Technicians must be factory trained as soon as possible, but normally no later than 24 months after appointment, on the following systems:

- **Fire Alarm.** Any person who is to repair, maintain, or reconfigure (additions and deletions) fire alarm systems must be factory trained by the specific systems manufacturer.
- **Private Automated Branch Exchange (PABX).** Any person who is to repair, maintain, or reconfigure the PABX must be factory trained by the PABX manufacturer.
- **Perimeter Detection Systems,** including Lethal/Non-Lethal. Any person who is to repair, maintain, install, or reconfigure perimeter detection systems must be factory trained by the manufacturer.
- **Trunked Radio Systems.** Any person who is to repair, maintain, or reconfigure trunked radio systems must be factory trained by the manufacturer.
- Technicians must be retrained on systems upgrades and at manufacturers' recommended intervals.
- Technicians working on Lethal/Non-Lethal fences must complete NEC (High Voltage) and NFPA 70E Training (Central Office-funded). This must take place within 1 year of appointment and every 3 years thereafter.

Until the Technician receives mandatory training, the Facility Manager must ensure resources are available to complete assigned tasks.

b. **Recommended Training.** It is recommended that technicians attend the following training:

- NFPA 72 - National Fire Alarm and Signaling Code.
- Programmable Logic Controllers (PLC).
- Digital or Network Video Recorders (DVR/NVR).
- Closed Circuit Television System (CCTV).
- Master Television System (MATV).

4. **SYSTEM INFORMATION AND DOCUMENTATION SECURITY**

a. **Operating Software.** The Operating Software is the software that controls the basic system functions. It is recommended that all Security Electronic System Operating Software be current and backed up per manufacturers' recommendations. The Facility Manager must provide the Technician with the appropriate means of conducting backups per the Program Statement **Information Security Programs.**

b. **Technical Documentation**

- **System Specifications and Installation Documents.** System Specifications and Installation Documents must be maintained in either printed or electronic copy in a secure area. A copy of all system specifications and installation documents pertaining to the Trunked Radio System must be stored in the radio equipment room.
- **Operator and Maintenance Manuals.** Operator and Maintenance Manuals must be accessible in either printed or electronic copies or through network access. The technician must have access to the most current manuals, technical bulletins, and updates. A copy of the original operator and maintenance manuals pertaining to the Trunked Radio System must be stored in the radio equipment room.

5. **MAINTENANCE**

The Facility Manager must ensure all installations, modifications, maintenance, and repair work on security electronic systems comply with manufacturers' recommendations and industry standards. All installation, modification, and maintenance of fire alarm systems must comply with NFPA 72 and 101, and manufacturer recommendations. All maintenance activities must be documented in CMMS.

6. **LAND MOBILE RADIO SYSTEMS (LMRS)**

a. **Radio Frequency Assignments.** All locations within the Bureau will use radio frequencies assigned by NTIA.

b. **Cross-Band Interface (CBI).** Prior to non-emergency use, frequencies must be requested through the Chief, Facilities Operations, no less than three weeks in advance.

Radios are available with approved designated frequencies that must be used by Emergency Response Teams in emergency and training situations.

c. **Standards.** All radio equipment must meet or exceed the standards of the NTIA Manual of Regulations and Procedures for Federal Radio Frequency Management.

d. **Procedures for Requesting Radio Frequency Assignments (RF).** Radio Frequency Assignments are required for all electronic equipment that emits or receives RF, such as handheld radios, base stations, etc., that transmit over one watt of energy.

To request a new or additional radio frequency assignment, the institution submits a request to the Regional Facilities Administrator to be forwarded to the Chief, Facilities Operations. Frequency requests are submitted using the Frequency Request form in the FROG.

For requests for shared frequencies with other Government agencies, include a Memorandum of Interagency Agreement from the non-Bureau Government agency, granting approval to use their frequencies, along with a list of the frequencies.

The Radio Frequency Request is then reviewed and forwarded to the Chief, Facilities Operations. A Government frequency must be assigned before the equipment is turned on and used. This frequency assignment must be kept current; only the assigned frequency can be used for the assigned purpose. A list of the approved frequencies can be obtained through the Regional Facilities Administrator.

e. **LMRS Operational Testing.** Body alarm testing will be conducted per the Program Statement **Correctional Services Manual** to ensure central equipment hardware is operating, as well as the trunked radio system programming.

f. **LMRS Preventive Maintenance.** Radio communication systems and equipment must be maintained in an operable condition.

The radio system must be entered in CMMS as an asset. Individual radios are not required to be entered as assets.

g. **Maintenance Program.** Each institution must utilize the National Radio Maintenance Contract for radio maintenance and battery replacement. Each radio must be sent in for

maintenance at a minimum of once every 18 months. Ensure an old battery is placed on the radio when it is shipped to the manufacturer for service/repairs.

h. **Annual Optimization.** Annual Optimization is conducted by the Field Service Technician via the National Radio Maintenance Contract.

i. **Radio Procurement.** The purchase of all radios, batteries, and accessories must be reviewed by the Technician for compatibility and approved by the Facility Manager. The purchase of radios capable of initiating private calls must be reviewed and approved by the Chief, Facilities Operations.

j. **System Configuration.** Only the Control Center radio console may be assigned as Priority One.

k. **Complex Radios.** All radios assigned as Complex radios, with multiple institution channels, must be assigned to radios with LED screens or clearly marked to identify the radio as a Complex radio. Procedures for marking the Complex radio will be determined locally.

7. PERIMETER DETECTION SYSTEMS

a. **Preventive Maintenance.** The Facility Manager must develop a schedule of procedures in CMMS to facilitate preventive maintenance of all perimeter detection systems per manufacturers' recommendations. Staff must follow all safety procedures when working near/on Non-Lethal/Lethal fences. Required live-line tools and protective equipment for working on Non-Lethal/Lethal fences shall be stored in the vicinity of the energizers. This is typically the Rear Gate Building.

b. **Records.** Perimeter Detection System event records will be archived at a minimum every 60 days. Incremental archiving will take place if changes are made to the system.

8. VOICE SYSTEMS

a. **WIRELESS COMMUNICATIONS.** Unauthorized two-way wireless devices must not be permitted within the secured perimeter of an institution.

b. **Private Automated Branch Exchange (PABX).** All PABXs must be equipped with the following security features:

- **No Dial Alarm.** To provide each station with the capability of initiating an alarm to the Control Center when the first, second, or any succeeding digit required to complete an internal or trunk call is not dialed within 14 seconds.
- **Emergency Conference Feature (222).** To provide personnel with the ability to use any station to report an emergency.
- **Watch Call Conference Feature (333).** To provide personnel with the ability to use any station to make a Watch Call.
- **Executive Override.** To allow authorized personnel, upon encountering a busy or special ring back tone on an internal call, to enter into the existing connection after a warning tone is given to the conversing parties.
- **Emergency Conference Feature (211).** To provide authorized personnel with the ability to use the Executive Override Feature to initiate an emergency conference call to 10 designated stations.
- **Special Security Features.** To function as intended, all multiline telephones installed in an operating Bureau facility are to be equipped with primary line pickup capability, which automatically selects a primary line when the handset is picked up.
- **Fax Machines and Dial-up Modems** that receive incoming and place outgoing calls may access the Commercial or Networx line via the PABX system.
- **Private Lines.** Private lines may be installed in the Warden's Office (1 Line), Control Center (1 Line) and Emergency Command Center (3 lines) as emergency telecommunication circuits. Additionally, non-emergency private lines may be installed that are necessary to support the Trust Fund Systems or equipment. Private lines may not be installed as telecommunication circuits for fax machines, dial-up modems, voice circuits, or any other non-emergency application that can use the PABX System to access the Commercial and/or Networx lines.
- **Voicemail Systems** must be compatible with PABX systems.

c. **Networx Telephone Service.** Requests for Networx must be sent through the Regional Facilities Administrator, to the Chief, Facilities Operations, for processing.

9. FIRE ALARM SYSTEMS

Fire Alarm System equipment must be maintained in accordance with NFPA 72 (latest edition), manufacturers' specifications and guidelines, and Chapter 7 of this manual.

Per NFPA 72, qualified personnel may perform maintenance of fire alarm systems. Any person who is to repair or reconfigure (additions and deletions) fire alarm systems must be factory trained by the specific systems manufacturer. All system programming must be conducted by authorized systems personnel.

10. METAL DETECTORS, SCANNERS, AND X-RAYS

Metal detectors, scanners, and x-ray machines must be maintained in accordance with manufacturers' recommendations or vendor contracts secured by the applicable Cost Center. Repairs must be conducted by certified manufacturers' representatives and funded by the applicable Cost Center. If Walk-Through Metal Detectors can be calibrated, they must be checked quarterly. Sensitivity settings will be reset as applicable. Documentation will be maintained according to the Program Statement **Records and Information Management Programs**. Metal detectors, scanners, and x-ray machines are not required to be entered as assets in CMMS.

11. INSPECTIONS AND TESTING

Inspections and tests are to be performed per applicable codes and manufacturers' recommendations, and scheduled in CMMS. Refer to the FROG for NFPA-required inspections and tests. Refer to Chapter 5 for additional inspection and testing requirements.

All discrepancies identified during inspections must be documented per Chapter 5. If the discrepancy must be corrected immediately, it is assigned as a priority 1 Work Order. If the discrepancy requires B&F funding, documentation must be provided to ensure inclusion in the institution B&F Master Planning (see Chapter 3). Once B&F funding is available, corrective work must commence immediately.

a. **Perimeter Detection Systems (excluding Non-Lethal/Lethal)**. The Monthly Controlled Operational Testing of the Perimeter Detection System will be performed to verify the perimeter detection system is operating in accordance with manufacturers' specifications. It consists of a test performed in accordance with the manufacturer's recommendations and/or procedures set forth in an Institution Supplement.

The Electronic Technician performs the test. Per the Program Statement **Correctional Services Manual**, a representative is assigned by the Chief Correctional Supervisor to assist with the test.

The Facility Manager must develop procedures in CMMS to complete controlled testing. Completion dates will be documented in CMMS.

b. **Non-Lethal/Lethal Systems**. Staff must not be permitted access between the fence lines for inspections while the system is energized, and without prior notification to the Facility Manager and Correctional Services Supervisor. If emergency work must be performed while the system is energized, two staff must be present at all times. See the FROG for testing procedures for Non-Lethal/Lethal Systems.

c. **Fire Alarm Systems.** Fire alarm systems inspections and testing must be conducted and documented in accordance with NFPA 72 (latest edition) and applicable policies. Refer to the FROG for a sample Fire Alarm Inspection and Test Form, and a list of typical inspections and tests. All fire alarm systems inspections must be entered into CMMS. All inspection reports must be maintained according to the Program Statement **Records and Information Management Programs.**

d. **Security Electronics.** All security electronics equipment and systems must be inspected and tested in accordance with manufacturers' recommendations and Bureau policies.

12. MONTHLY PERIMETER DETECTION REPORTING

The Facility Manager or designee must enter data in CMMS on the Perimeter Detection System monthly. The technician completes the standard CMMS Work Order to obtain all reportable information to be entered in CMMS. This data is sensitive information and must be treated as such.

The term "Reportable Alarms" is used as a Bureau measure of the system's effectiveness. Reportable Alarms consist of any alarm that is not identifiable. They are categorized as Unknown and Attempted Perimeter Breach. Non-reportable Alarms are alarms categorized as Testing and Maintenance.

The Technician must have comments entered in CMMS as to the condition and operability of the perimeter fence. The Chief Correctional Officer and Facility Manager must review and sign the hard copy of the report. Comments from the Chief Correctional Officer and Facility Manager are not mandatory but encouraged. The institution will maintain a signed hard copy of the report according to the Program Statement **Records and Information Management Programs.**

The Facility Manager must notify the Regional Facilities Administrator by the 15th of the month, via email, that the data has been entered in CMMS for the previous reporting month and is ready for review.

Each month, the Regional Facilities Administrator, or designee, will review the perimeter report. Written responses must be provided to the institution that the Perimeter Report was reviewed and guidance was provided as needed.

Chapter 10. VEHICLE FLEET

1. GENERAL PROCEDURES

To obtain maximum use, safety, and economy of operations, it is essential to follow an organized plan for maintenance, repair, and operation of all Bureau automotive and motorized equipment.

All Bureau locations must follow the operating and preventive maintenance procedures described herein for Bureau-owned (including UNICOR) motor vehicles, motorized equipment, and GSA fleet vehicles, whether serviced or maintained at the institution's garage or a commercial repair facility.

Various Executive Orders, Federal and State laws, and regulations apply to the Bureau's fleet. These are frequently changing and being revised. The institution fleet must comply with all applicable current requirements. This includes, but is not limited to:

- The Energy Policy Act of 2005.
- The Energy and Independence Act of 2007.
- Executive Order 13693.

As technology advances, with the approval of the Chief of Facilities Operations, CMMS may be utilized to perform additional electronic documenting, tracking, and reporting functions.

Seatbelts must be worn at all times while operating the vehicle. Hand-held cellphone use (including texting) is strictly prohibited.

2. RESPONSIBILITY

a. **Central Office.** The Fleet Manager, located in the Facilities Management Branch, Central Office, provides overall direction for fleet operations. This includes:

- Development of annual budget submissions.
- Monitoring vehicle acquisitions and disposals.
- Monitoring bus maintenance activities at the National Bus Center (BCT), located at FCC Terre Haute.
- Managing the Bureau Fleet Card program.
- Preparing the Annual Tag Report for submission to the Justice Management Division (JMD).
- Preparing Quarterly Reports for usage of Oil, Fuel, Diesel Exhaust Fluid (DEF), Tires, Antifreeze, Kilowatts, etc. for submission to JMD.

- Preparing the Federal Fleet Report (FFR) through the DOJ Federal Automotive Statistical Tool (FAST).
- Preparing the OMB Budget, forecasting future funding needs, and providing DOJ Data Call information.
- Maintaining the Federal Motor Vehicle Registration System (FMVRS).
- Overall direction of fleet operations at Residential Reentry Management Offices and National Training Centers.

b. **Regional Office.** Regional Facilities Administrators are responsible for the overall direction of fleet operations at all institutions and offices within their region. These responsibilities include:

- Monitoring CMMS to ensure all vehicle data (fleet, fuel, oil, mileage, etc.) at institutions and Regional Offices are entered accurately to enable proper reporting for the following:
 - Annual Tag Report.
 - Quarterly Bus Report.
- Designate a staff member as Regional Fleet Coordinator to track and monitor institution and regional fleet.
- Maintain Regional fleet and Fleet Cards issued to the Regional Office.

c. **Institution.** The Facility Manager is responsible for the management, maintenance, repair, and operation of the institution fleet and motorized equipment. This includes:

- All vehicles and motorized equipment (including UNICOR and BCT buses) must be entered as assets in CMMS.
- Maintain institution-issued Fleet Cards.
- Enter data (materials, fuel, oil, mileage, repair costs, etc.) in CMMS to enable the preparation of the following reports:
 - Annual Tag Report.
 - Quarterly Bus Report.
- Prepare a Vehicles Institution Supplement to include:
 - Issuance of Fleet Cards.
 - Issuing Vehicles (during normal working hours and after hours).
 - Dispensing Fuel After Hours.
 - Accident Reporting Procedures.

3. VEHICLE ACQUISITION AND REPLACEMENT

a. **Replacement Guidelines.** Vehicles and equipment (including Low Speed Electric Vehicles) are identified for replacement through the information contained in CMMS and the Annual Tag Report. Replacement guidelines are located in the FROG. To ensure accurate replacement criteria, institutions must update the odometer readings and condition codes in CMMS by October 15 annually.

b. **Vehicle Review Committee.** The Vehicle Review Committee reviews CMMS documentation during the first quarter of the fiscal year to determine current year vehicle/equipment replacement priorities, in accordance with available funding, and future year vehicle budgetary needs. The Vehicle Review Committee consists of the following staff:

- Chief, Facilities Operations (Chairperson).
- Fleet Manager.
- Bus Operations Manager.
- Union representative.
- Two randomly selected staff. If bargaining unit staff, they are selected by the Union.

The Committee reviews CMMS to determine and prioritize the replacement of the following:

- Perimeter patrol vehicles.
- Prisoner transportation vehicles.
- Bureau buses.
- Pursuit vehicles.
- All other vehicles (sedans, trucks, etc.).
- Equipment.

The Committee prepares purchase documentation for all vehicles/equipment being replaced. Institutions will be notified in writing if they are slated to receive replacement vehicles/equipment.

Fleet Management staff will enter all vehicle/equipment information in CMMS for newly purchased vehicles/equipment.

Institutions will be notified in writing when vehicles are ready for pick-up/delivery. Once the vehicle is received by the institution, a Stores Requisition, Invoice and Transfer Receipt (BP-A0100) is completed and a copy sent electronically to the Fleet Manager mailbox. The Fleet Manager enters the Institution Acquired Date (the date the BP-A0100 was signed) in CMMS and

exports the vehicle asset master in CMMS to the applicable institution database. The Fleet Manager notifies the institution in writing that the transaction has occurred. The institution then has 30 days from the Institution Acquired Date on the new vehicle to survey the replaced vehicle in CMMS. Vehicle tags must be returned as indicated below. The institution must assign the applicable PM's and procedures for maintaining the vehicles/equipment. The vehicle/heavy equipment title is maintained by the Inventory Management Specialist or designee.

c. **Emergency Replacement or Addition of Vehicles.** Emergency replacement is defined as: Institutions requiring the replacement of a vehicle that was damaged beyond repair, catastrophic mechanical failure, or is critical to the security of the institution. Fleet additions may be requested when the institution's mission changes.

Institutions requiring the emergency replacement or addition of a vehicle the Facility Manager must submit a memorandum from the Warden, through the Regional Director, through the Fleet Manager, to the Chief, Facilities Operations. If a vehicle is being replaced, include in the memo the Asset Number (J tag), Year, Make, and Model of the vehicle being replaced. If the vehicle is approved for replacement/addition, the institution will be notified in writing and it will be processed as outlined in this chapter.

Facility Managers at activating institutions are to obtain documentation from their Regional Activation Coordinators as to which vehicles are being provided. Once the vehicle is received by the institution, a Stores Requisition, Invoice & Transfer Receipt (BP-A0100) is completed and a copy is sent electronically to the Fleet Manager mailbox and the applicable Regional Facilities Administrator. The Fleet Manager enters the Institution Acquired Date (the date the BP-A0100 was signed) in CMMS and exports the vehicle asset master in CMMS to the applicable institution database. The Fleet Manager notifies the institution in writing that the transaction has occurred. The institution must assign the applicable PM's and procedures for maintaining the vehicles/equipment. The vehicle/heavy equipment title is maintained by the Inventory Management Specialist or designee.

d. **Recycling Programs.** If a vehicle's primary use is for a recycling program, the costs associated with maintaining and repairing the vehicle will be paid for by the cost center associated with recycling.

e. **UNICOR.** The Facilities Management Branch does not purchase vehicles/equipment for UNICOR; however, Facilities must track all UNICOR vehicles in CMMS. The Facility Manager must review and sign all Vehicle Acquisition Requests (VAR). UNICOR prepares the VAR and submits it to the Operating Accountant, Office of Financial Management, UNICOR Division, who will then forward it to the Fleet Manager (Administration Division, Facilities Management Branch, Central Office). A copy of the VAR should be given to the Facility Manager at the

institution for tracking purposes. If the VAR is disapproved, it will be returned to the Operating Accountant and Facility Manager. If the VAR is approved, it will be processed as outlined in this chapter.

f. **Residential Reentry Offices and Training Centers.** VARs are to be prepared and submitted by the applicable sector chiefs, directors, or designees to the Fleet Manager (Administration Division, Facilities Management Branch, Central Office). If the VAR is disapproved, it will be returned to the submitting supervisor. If the VAR is approved, it will be processed as outlined in this chapter.

g. **Vehicle Acquisition Approvals (UNICOR, RRM, Training Centers).** If the VAR is approved, the Fleet Manager will assign a Fleet Authorization (FA) Number and return the approved VAR to the applicable requester. If the VAR is for a UNICOR vehicle, it is returned to the Operating Accountant, Office of Financial Management, UNICOR Division, applicable Facility Manager, and Regional Fleet Coordinator. The FA number must appear on all acquisition documents. The approved VAR must be maintained on file for the life of the vehicle/equipment. The vehicle/equipment title is maintained by the applicable Inventory Management Specialist or designee.

h. **Delivery.** The requesting facility is responsible for the coordination of the delivery of all vehicles/equipment. The delivery fees for vehicles coming from the National Bus Center are already included in the cost of the vehicle. For non-Bus Center vehicles, delivery costs are added to the original cost fee from the VAR and entered in CMMS in the applicable field.

i. **Assets.** Within 30 days of being received at the facility, the Facility manager must ensure all vehicles and equipment are entered in CMMS with the corresponding PM and procedure for conducting preventative maintenance and the Vehicle Monthly Report is printed and processed as indicated in Vehicle Reporting below. The tag number is the asset number. Preventive maintenance must be scheduled and completed according to this policy and manufacturers' recommendations. All materials used must be listed individually on the completed Work Order for entry into CMMS.

UNICOR notifies the Facility Manager promptly of fleet changes affecting tags, vehicle identification, acquisitions, disposals, etc.

j. **Surplus.** Procuring vehicles/equipment from Surplus is not encouraged, although it may be considered. Institutions wishing to obtain vehicles/equipment off surplus must submit a memorandum from the Warden, through the Regional Director, through the Fleet Manager, to the Chief, Facilities Operations. If a vehicle is being replaced, include in the memo the Asset Number (J tag), Year, Make, and Model of the vehicle being replaced. If approved, the Fleet

Manager will issue a VAR that is “approved pending procurement.” If the vehicle approved is not the vehicle acquired or if the procurement is not made, the Regional Fleet Coordinator and Fleet Manager must be notified of the change. When the transaction is completed, the Facility Manager must submit a copy of the vehicle Title and the Stores Requisition, Invoice & Transfer Receipt (BP-A0100) electronically to the Fleet Manager mailbox and the applicable Regional Facilities Administrator. The Fleet Manager will order and ship J tags as applicable and enter the vehicle/equipment in CMMS. Once the institution is notified in writing the vehicle has been entered in CMMS, they must assign the applicable PM’s and procedures for maintaining the vehicles/equipment. The vehicle/equipment title is maintained by the Inventory Management Specialist or designee. Vehicle Monthly Report is printed and processed as indicated in Vehicle Reporting below. The institution then has 30 days from the Institution Acquired Date on the new vehicle to survey a replaced vehicle in CMMS.

4. VEHICLE TAGS

a. **Tags.** Each DOJ reportable motor vehicle the Bureau operates, including UNICOR, must display properly assigned DOJ license plates (“J” tags) on both the front and rear of the vehicle (JXXXABC). Each roadworthy trailer will display “J” tags that end in “T” (JXXXT). The Fleet Manager assigns all “J” tags for Bureau vehicles/equipment.

GSA leased vehicles are to display GSA series tags.

Prisoner transportation buses issued by the BCT must display BCT tags (JXXXXBUS).

Vehicles used primarily for law enforcement purposes, such as undercover pursuit and undercover inmate transportation, are eligible to use state tags. Before obtaining state tags, a written request must be submitted to the Fleet Manager for review and approval. The request for state tags must meet the guidelines contained in 41 C.F.R. § 102-34.185 and JPMR 128-38.51. State tags are not transferrable. State tagged vehicles must comply with state inspection requirements. When the vehicle is removed from service, the state tags will be returned to the state licensing office.

The Fleet Manager must maintain a central listing of all tag assignments.

b. **Tag Procurement.** All vehicles received from Fleet Management at the National Bus Center will have the “J” tags and FPS number affixed to the vehicle prior to delivery.

For vehicles ordered at the institution level, the Facility Manager must submit a copy of the vehicle Title and the Stores Requisition, Invoice & Transfer Receipt (BP-A0100) electronically to the Fleet Manager mailbox and the applicable Regional Facilities Administrator. The Fleet

Manager will order and ship “J” tags as applicable and enter the vehicle/equipment in CMMS. The FPS number is acquired from the institution warehouse and must be entered in CMMS on the applicable asset master.

c. **Lost, Stolen, or Missing “J” Tags.** The applicable fleet supervisory staff will notify the Regional Fleet Coordinator and Fleet Manager within 48 hours upon notification that a tag is lost, stolen, or missing. A memorandum must follow, indicating pertinent facts about the missing tag. If recovered, a lost or stolen tag may not be reused and is returned to the Fleet Manager.

d. **Surveyed Vehicle Tags.** The “J” tag will be mailed to the Central Office Fleet Manager within 30 days of the signed BP-A0100. Documentation will be maintained on file as to when the tag was mailed.

5. VEHICLE DISPOSAL

a. **Surveyed/Replaced Vehicles.** When a vehicle/equipment is identified to be replaced, a Stores Requisition, Invoice & Transfer Receipt (BP-A0100) is completed to transfer the vehicle/equipment to the Inventory Management Specialist or designee. The asset will be surveyed in CMMS and reported on in the Vehicle Monthly Report (see Reporting, below).

At the time of survey, the vehicle is to be removed from service and parked in a safe location. The vehicle is not to be driven or altered in any way. The keys are to be retained by the Property Officer. **The “J” tags are to be removed and returned to the Fleet Manager in Central Office within 30 days of the BP-A0100 being signed.**

A vehicle that is no longer needed by a facility, yet does not meet the replacement guidelines (see the FROG), cannot be disposed of or sold. It must be returned to the Fleet Manager. Contact the Regional Fleet Coordinator for guidance.

Once the vehicle is designated to be surveyed, the garage foreman will complete the Report of Survey (BP-A0111). The Report of Survey number (ROS) will be obtained from the warehouse and entered in CMMS in the ROS Field.

b. **Resale Vehicles.** Vehicles that have been surveyed and still have marketable value must be transferred to GSA for resale. A Report of Personal Property for Sale (SF-126) must be completed. The money received from the sale will be entered in CMMS.

c. **Salvaged Vehicles.** The facility will contact the Fleet Manager to receive authorization to salvage a damaged vehicle. Guidance will be given by the Fleet Manager to either salvage or

repair the vehicle. If the vehicle is to be salvaged, the garage foreman will assist the Property Officer in the completion of the Report of Survey (BP-A0111). The money received from salvage will be entered in CMMS.

6. VEHICLE DISPATCHING

Cost-effective procedures must be established for controlling and scheduling vehicle usage to avoid driving unsafe vehicles as well as limiting unnecessary trips. The Vehicles Institution Supplement must include a tracking system (logs, log book, etc.) to maintain accountability of all vehicles dispatched.

The garage foreman or designee dispatches all vehicles from the garage/motor pool during normal duty hours following procedures in the Vehicles Institution Supplement.

After-hours vehicle dispatch will be determined locally in the Vehicles Institution Supplement.

For other than local transportation, requests for vehicles and fleet card must be submitted to the Facility Manager via email. Requests must be submitted as far in advance of contemplated use as possible. The Facility Manager must maintain requests for one year.

The Fleet Card Responsibility Statement (see the FROG for the form) must be utilized whenever a fleet card is issued. The Facility Manager retains a copy of these forms per the Program Statement **Records and Information Management Programs**.

7. FLEET CARDS

Each facility must designate a fleet card manager (Facility Manager, Regional Facilities Administrator, etc.), who is responsible for maintaining fleet cards. The fleet card is the required method of payment for all offsite fuel purchases in Government vehicles. Only authorized fleet card holders may make purchases on behalf of the BOP using the fleet card. Staff utilizing fleet cards signs a Fleet Card Responsibility Statement (see the FROG) prior to issuance. The Vehicles Institution Supplement will identify steps for issuing and using fleet cards. Staff utilizing fleet cards must obtain receipts for all purchases. The tag number will be written on each receipt. Institution staff are authorized to purchase fuel and emergency repair services. Non-institution staff are authorized to purchase fuel, regular and emergency maintenance, and car washes. Should the car become disabled, immediately notify the applicable facility. The fleet card and all receipts must be returned to the fleet card manager for monthly reconciliations. Data (fuel, mileage, materials, etc.) from the fleet card receipts is entered in CMMS against the applicable asset.

8. VEHICLE MAINTENANCE AND REPAIR

a. Tracking and Reporting Responsibilities

- **Institutions.** All vehicles/equipment must be entered in CMMS and have maintenance procedures scheduled according to the manufacturers' recommended standards of inspections and maintenance. Special attention will be given to safety devices and equipment. Additional maintenance procedures can be scheduled as deemed necessary. Shop manuals, handbooks, charts, etc., must be obtained from the vehicle manufacturer.
- **Regional Offices.** Regional Offices use CMMS to track all vehicles and the costs related to fuel, maintenance, and labor. All costs are charged to the applicable Fleet Card.
- **Residential Reentry Offices, Training Centers, UNICOR Not at Institutions.** All costs are to be charged to the applicable Fleet Card. All mileage, fuel, and maintenance costs and consumptions are reported in writing to the Fleet Manager by the 15th of each month for the previous month.
- **National Bus Center (BCT).** The BCT Manager is responsible for maintaining the BCT's assigned vehicles. The BCT tracks, via the Quarterly Bus Report, all BCT-issued inmate transportation buses. Institutions enter all fuel, maintenance, and labor costs in CMMS for assigned BCT buses. All fuel, oil, antifreeze, and tires will be individual entries against each asset. All other materials are entered against the material master in CMMS.
- The Deputy Chief, Capacity Planning and Construction Branch, Central Office, or designee ensures that maintenance and operating costs are maintained on Bureau-owned and -leased vehicles at new construction sites.

b. **Asbestos Brakes/Parts.** Vehicles may have disc brake pads, drum brake linings, brake blocks, clutch facings, and automatic transmission components that contain asbestos. When maintenance or repair on these items become necessary:

- Follow the prescribed precautions in the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection.**
- If no documentation is available stating the suspect part is asbestos-free, contact the vehicle manufacturer requesting documentation.
- Without documentation, consider the suspect part to contain asbestos.
- Maintenance or repair on asbestos-containing parts must be performed by a qualified commercial vendor. The replacement parts will be non-asbestos, and documentation will be provided for the vehicle file.

c. **Oil and Filter Changes.** Perimeter patrol vehicles are considered "severe use" vehicles. All severe use vehicles must have the oil and filter replaced at the manufacturers' recommended interval. If the manufacturer does not have a recommendation, they must be replaced every

2,500 miles or 3 months. A severe use vehicle is defined as a Perimeter Patrol vehicle, a high idling vehicle, or any vehicle defined as severe use by the manufacturer.

All “normal use” vehicles must have the oil and filter changed at the manufacturers’ recommended intervals. A normal use vehicle is defined as any vehicle that is not severe use or low mileage.

All “low mileage” vehicles must have the oil and filter changed every 12 months. Low mileage vehicles are defined as vehicles that do not meet the minimum mileage requirement for a recommended oil change within 12 months.

Oil and filters can be aftermarket products as long as they meet the manufacturers’ specifications. Oil may be virgin, re-refined, or synthetic.

d. **Mileage and Materials Records.** The garage foreman or designee must document all mileage/meter readings and fuel usage for vehicles and reportable equipment and enter them into CMMS monthly. The asset master in CMMS must have the “current meter reading” updated monthly. A Work Order is not necessary to enter fuel against an asset. Forms will be maintained on file in the Facilities office for 24 months.

e. **Miscellaneous Gas Powered Equipment – Fuel and Oil Usage.** To ensure proper reporting of fuel and oil usage, all fuel and oil used in miscellaneous gas-powered equipment (i.e., landscape equipment) not previously documented on a completed Work Order must be entered into CMMS monthly. One “Material Issue” entry per month for the total consumption can be made per fuel and oil type. Forms will be maintained on file in the Facilities office for 24 months.

9. DRIVER’S LICENSES AND PERMITS

a. **Staff.** Staff operating Government vehicles off Government property must have a valid state-issued driver’s license with the appropriate Class Code (Class A, B, C, etc.) for the vehicle in operation. Non-licensed staff may operate vehicles on institution grounds if properly trained.

b. **Inmates**

(1) **Institution Grounds.** Inmates operating Government vehicles and equipment on institution grounds must be trained according to OSHA and the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**. Once trained, inmates receive an institution-issued Inmate Driver’s Permit (see the FROG for format) listing the vehicles/equipment authorized to operate. All restrictions must be documented on the Permit.

(2) **State Roads.** Inmates operating Government vehicles and equipment on state roads must have a valid state-issued driver's license with the appropriate Class Code (Class A, B, C, etc.) for the vehicle in operation.

10. DRIVER TRAINING AND EQUIPMENT SAFETY

a. **Training – Staff and Inmates.** All Facilities Department staff and inmates authorized to operate institution specialized vehicles and heavy equipment must be properly trained and evaluated prior to operating each piece of equipment. The training must include the location and proper operation of the safety devices located on the equipment.

Training documentation must be maintained on file in the Facility Department and Environmental and Safety Compliance Department.

b. **Equipment Safety.** Daily, prior to equipment being placed in operation, the operator must inspect all safety devices to ensure proper operation and to check for unauthorized tampering. Where the equipment is used on a round-the-clock basis, it must be examined after each shift. Defects, when found, must be immediately reported and corrected. The equipment will be placed out of service until repairs are made. Daily checks are documented in a bound logbook for each piece of equipment.

c. **Designated Battery Charging Stations.** These must be assigned and properly identified.

11. INDUSTRIAL TRUCKS AND MOTORIZED EQUIPMENT LESS THAN 50 HORSEPOWER

All Facilities Department fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks (golf carts) powered by electric motors or internal combustion engines must be entered as assets in CMMS with appropriate procedures for monthly maintenance, including safety devices.

Per 29 C.F.R. § 1910.178, Powered industrial trucks: All Facilities Department staff and inmates authorized to operate this equipment must be properly trained and evaluated prior to operating each piece of equipment. The training must include the location and proper operation of the safety devices on the equipment. Training documentation is maintained on file in the Facility Department and Environmental and Safety Compliance Department.

Daily, prior to equipment being placed in operation, the operator must inspect all safety devices to ensure proper operation and to check for unauthorized tampering. Where the equipment is

used on a round-the-clock basis, they must be examined after each shift. Defects, when found, must be immediately reported and corrected. The equipment will be placed out of service until repairs are made. Daily checks are documented in a bound logbook for each piece of equipment.

Designated battery charging stations must be assigned and properly identified.

Material and parts used to maintain and repair specialized industrial trucks (golf carts) must be paid for by the cost center using the equipment.

12. ACCIDENT REPORTS

All accidents must be reported promptly to the institution Environmental and Safety Compliance Administrator and Facility Manager, or applicable supervisor, in accordance with the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection** and Vehicles Institution Supplement. Accident reports must include the vehicle tag and FPS number. The institution Environmental and Safety Compliance Administrator or applicable supervisor is to maintain an adequate supply of the following accident forms, writing utensils, and emergency contact numbers in vehicles at all times:

- Operator's Report of Motor Vehicle Accident (SF-91).
- Statement of Witness (SF-94).
- Claim for Damage, Injury or Death (SF-95).

All accidents and damage to Bureau prisoner transportation buses must be reported, along with copies of the three forms above, to the Institution Environmental and Safety Compliance Administrator, Facility Manager, Bus Operations Manager, and Fleet Manager. The Fleet Manager forwards a copy to the Chief, Prisoner Transportation, Central Office.

13. FUEL CONTROL

a. **Dispensing Fuel After Hours.** The Vehicles Institution Supplement will identify steps for dispensing fuel after hours. If a Fuel Management system is not in place and operational, the supplement must consist of a bound logbook to record the following information:

- Date and time of fuel pump key issuance.
- Name of employee issued fuel pump key.
- Vehicle tag number.
- Mileage of vehicle (odometer reading).
- Type of fuel dispensed.
- Number of gallons dispensed.

- Gas pump meter readings (beginning and ending).
- Signature of person receiving fuel.

The garage foreman or designee is responsible for obtaining the data recorded in the logbook and transferring this information to the garage records for entry into CMMS.

b. **Fuel Cost Accountability.** Fuel purchased from Cost Centers P2 (336) or P1 (334) funds for UNICOR vehicles and equipment and Bureau buses is to be charged as follows:

- UNICOR and recycling operations must reimburse the Facilities cost center for fuel and materials provided by the Bureau to maintain vehicles and equipment.
- The Facility Manager must obtain cost data associated with the maintenance and operation of UNICOR-leased vehicles and equipment that is performed by non-Bureau facilities for entry into CMMS monthly.
- Bureau bus fuel issued from institution tanks or by Fleet Card may be reimbursed by Cost Center BE (Example: FP RR II SL BE) (Prisoner Transportation) when the Chief of Prisoner Transportation schedules or approves the travel. The institution absorbs all other usage costs.
- Staff traveling to other institutions must use the assigned Fleet Card for all fuel. In emergency situations, with visiting institution approval, vehicles may be refueled at the institution. If a vehicle is refueled at the institution, the quantity of fuel dispensed must be relayed to the home institution garage foreman.

c. **Accountability of Fuel Inventories and Deliveries.** The garage foreman or designee is to maintain accountability records of fuel received and dispensed on the Stock Record Card (BP-A0109).

- The garage foreman or designee is to read the fuel pump meters at the beginning and end of each working day and record readings in a bound “Fuel Inventory” logbook. Records must be maintained for two years.
- Institutions with computerized controlled Fuel Lock Systems are not required to maintain a logbook, provided the computer system maintains the required information. A daily printout must be maintained on file for two years. In the event the Fuel Lock System is temporarily inoperable, a logbook must be maintained.
- The garage foreman or designee must stick (with a calibrated stick) the tank prior to and after fuel delivery and record the amount of fuel dispensed on the Stock Record Card (BP-A0109). Spill control procedures must be followed and equipment in place when fuel deliveries are being dispensed, in accordance with the institution Spill Prevention Control and Countermeasure (SPCC) Plan.
- The designated staff member is to verify fuel inventories annually, during the last quarter of the fiscal year, in accordance with the Program Statement **Property Management Manual**.

- The cost per gallon must be updated in CMMS on the Material Master for fuel type delivered.

14. FUEL TANKS, PIPING, AND PUMPS

The installation of new fuel tanks, piping, and pumps; the maintenance of existing fuel tanks, piping and pumps; and the accountability of stored fuels must be done in accordance with NFPA 30, 30A, EPA, and other applicable state or Federal laws/regulations and the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**. Also, refer to the institution SPCC Plan for additional information.

Each institution must determine applicable jurisdictional authority and applicable compliance standards.

All fuel tanks (Above Ground Storage Tanks (AST), Underground Storage Tank (UST), and Expansion tanks) must be entered as assets in CMMS. Tanks must have monthly maintenance and inspection procedures scheduled in accordance with applicable state or Federal laws and regulations.

All fuel tanks are to be measured monthly, utilizing a calibrated stick, and logged on the Stock Record Card (BP-A0109) and in the bound “Fuel Inventory” logbook.

The Facility Manager will enter procedures in CMMS to review all permits, at a minimum 6 months prior to the permit expiration date. Ensure the date set allows enough time to meet the permit renewal requirements.

15. BUS MAINTENANCE

The Bus Operations Center, located at FCC Terre Haute, has overall responsibility for the bus maintenance program, with general oversight provided by the Bus Operations Manager. Retread tires are **not** authorized on Bureau buses.

a. **Information.** All information and questions regarding bus maintenance must be communicated to the local Facility Manager. The Facility Manager must address these issues or concerns before involving the Bus Operations Manager. (This is intended as a guide and should not prevent communication at any level during emergencies.)

b. **Expenditures.** Institution expenditures supporting the Bus/Prisoner Transportation Program may be obligated to Cost Center BE (**Example:** FP RR II SL BE).

c. **Daily Inspection.** The bus operator is to perform a bus inspection before and after putting the vehicle into operation, and note any deficiencies on the Bus Inspection form (BP-A0509).

Before a bus is placed in operation, the bus operator is to address any safety/security concerns with the garage foreman. If the concern is not a safety/security hazard, the garage foreman will document this on the Daily Bus Safety, Security, and Maintenance Inspection guidance document (see the FROG) and make the necessary repairs once the bus is returned.

Upon completing the trip, the bus operator must complete the Daily Bus Safety, Security, and Maintenance Inspection. The original is sent to the institution garage foreman with a copy forwarded to the Chief Correctional Supervisor.

d. **Preventive Maintenance/Inspections.** Buses assigned to an institution are to be entered in CMMS as an asset using the tag number as the asset number. The Bus Operations Center will issue national maintenance procedures and inspections to be completed on BCT buses.

The Facility Manager is responsible for ensuring that monthly, quarterly, and semi-annual preventive maintenance and inspection Work Orders are generated and completed as assigned. The Work Orders must be completed in accordance with Chapters 2 and 5 of this manual. Reporting of bus operations will be completed as specified in the reporting section below.

e. **Annual Bus Inspection.** An annual inspection will be performed on all Bureau buses, regardless of the miles traveled since the last inspection.

This inspection will, at a minimum, consist of the items listed in the Annual Bus Inspection, Chassis, and Brakes guidance document located in the FROG. Non-BCT-issued buses can use this inspection list to perform annual preventive maintenance.

The National Bus Center schedules, coordinates, and performs bus inspections. However, at the Fleet Manager's discretion, authorization may be granted to conduct annual inspections at a locally authorized garage for some low-mileage buses.

The National Bus Inspection schedule will be distributed to institutions at the beginning of the Fiscal Year.

The garage foreman is required to receive 40 hours of annual bus training. The garage foreman will accompany the bus to the National Bus Center and assist with performing preventive maintenance to receive credit for training. He/she may also be assigned Bureau courses as part of their required training while at the Bus Center. This training will include the latest updates for the assigned bus. The Bus Operations Manager will issue documentation that the garage

foreman completed the assigned training. This documentation must be maintained on file in the Facilities Manager's office. Travel expenses related to this training and the annual bus maintenance inspection are charged to Cost Center BE.

f. **Bus Operations and Maintenance Review.** Buses identified for priority replacement are identified through information contained in CMMS, the vehicle maintenance history, and current industry standards.

The Bus Operations Review Committee will review future replacement budget submissions and establish replacement priorities consistent with available funding. The Committee is to consist of the:

- Chief, Facilities Operations (Chairperson).
- Chief of Prisoner Transportation.
- Fleet Manager.
- Bus Operations Manager.
- Union Representative.

The Committee must meet during the first quarter of each Fiscal Year. Meeting minutes and supporting documentation are to be maintained on file by the Bus Operations Center. The meeting agenda is to review the following specific issues:

- Review condition and maintenance history of each bus (mileage, age, repair cost, overall assessment of condition, projected replacement year, etc.).
- Review proposed bus rotation schedule.
- Review proposed budget submission for future bus replacements.

g. **Bus Modifications.** No alterations, modifications, or equipment additions to a Bureau prisoner transportation bus may take place without prior written approval of the Chief, Facilities Operations, Central Office. Facilities Operations must coordinate requested changes with the Chief of Prisoner Transportation, Chief of Correctional Services, and Bus Operations Manager before approval is granted.

16. REPORTING

The Bureau is required to report various vehicle usage information for all vehicles and equipment 50 horsepower and greater. These reports must be scheduled in CMMS. A copy of the completed reports must be filed in the Facilities Office for 24 months.

a. **Annual Tag Report.** The Annual Tag Report must include 12 months of data from July 1 to June 30. The Reporting Year (RY) will be for the year ending June 30. To maintain accurate data in CMMS, the institutions ensure data is updated on a quarterly basis per the following:

- 1st Qtr – July, August, September – entered by Oct. 15
- 2nd Qtr – October, November, December – entered by Jan. 15
- 3rd Qtr – January, February, March – entered by Apr. 15
- 4th Qtr – April, May, June – entered by July 15

Reporting responsibilities:

- **Institution.** The Facility Manager or designee will notify the Regional Facilities Administrator or designee via email by July 15, stating the Annual Tag Report is completed and ready for review. Once the Tag Report notification is submitted to the Region, the facility will not make any changes to the vehicle asset masters until notified by the Regional Fleet Coordinator.
- **Region.** The Regional representative will review the Tag Reports and notify the Fleet Manager by July 31 that the Tag Reports for the Region are completed and ready for review and approval.
- **Central Office.** Once the final reporting information is obtained from CMMS, the Fleet Manager or designee will notify the Regional Facilities Administrator or designee they are able to make changes to the vehicle asset masters in CMMS.

b. **Quarterly Bus Report.** The reporting periods are as follows (RY16 is used as an example):

- 01RY16 – July, August, September (2015).
- 02RY16 – October, November, December (2015).
- 03RY16 – January, February, March (2016).
- 04RY16 – April, May, June (2016).

Data for the previous reporting quarter must be entered in CMMS by the 15th of October, January, April, and July for the previous reporting quarter. Upon completion, an email notification must be submitted to the Regional Facilities Administrator or designee, stating the report is completed and ready for review.

c. **Vehicle Reporting – CMMS – Vehicle Monthly Report.** Changes to the fleet must be documented in CMMS. The CMMS Vehicle Monthly Report is printed each month to document any changes to the fleet. The printed report is reviewed and approved by the Facility Manager.

Chapter 11. MECHANICAL SYSTEMS AND POWER PLANT OPERATIONS

1. COMPLIANCE

The purpose of this chapter is to provide standards to safeguard life, health, and property by regulating the design, construction, installation, quality of materials, location, operation, maintenance, and use of mechanical systems within the Bureau. This includes all heating, ventilating, cooling, refrigeration, boilers, chillers, emergency generating units, and other heat or cooling producing equipment or appliances.

For maximum benefit, this chapter must be used in conjunction with the applicable codes listed below. This chapter is directed toward persons who operate, maintain, and inspect mechanical systems, boilers, and unfired pressure vessels, whether directly or in a supervisory capacity.

2. CODES AND STANDARDS

All work related to the installation, inspection, and testing of mechanical and power plant systems must meet the requirements of the latest version of all applicable codes and standards. The applicable publications that need to be referenced frequently are to be available in the Facilities Department or online. When a conflict occurs between this Manual and applicable codes, the most restrictive provision applies.

- American Society of Mechanical Engineers Boiler and Pressure Vessel Codes (ASME).
- National Board Inspection Code (NBIC).
- National Board of Boiler and Pressure Vessel Inspectors (NBIB).
- National Board Synopsis of Boiler and Pressure Vessel Laws, Rules, and Regulations (NB-370).
- American Society for Testing and Materials (ASTM).
- Controls and Safety Devices for Automatically Fired Boilers (ANSI/ASME CSD-1).
- American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE).
- National Fire Protection Association (NFPA), National Fire Code (NFC). This includes, but is not limited to:
 - National Electrical Code (NFPA 70).
 - Boiler and Combustion Systems Hazards Code (NFPA 85).
 - Life Safety Code (NFPA 101).
 - National Fuel Gas Code (NFPA 54).
 - Emergency Power and Standby Systems (NFPA 110).

- Sheet Metal and Air Conditioning Contractors National Association (SMACNA) Manuals on HVAC Systems Installation, Air Duct Construction Standards, Balancing and Adjustment of Air Distribution Systems, and Fire Damper Guide.
- Environmental Protection Agency (EPA) Guidelines for Air and Water Quality and applicable state and local air and water quality environmental regulations. If conflicts exist between Federal, state, and local codes, the most stringent applies.
- International Code Council (ICC):
 - International Mechanical Code (IMC).
 - International Plumbing Code (IPC).
 - International Building Code (IBC).
 - International Energy Conservation Code (IECC).
 - International Existing Building Code (IEBC).

3. DEFINITIONS

High pressure/temperature boiler. A boiler operating at a steam pressure in excess of 15 psig, or water boilers in which the pressure exceeds 160 psig, or the temperature exceeds 250 degrees Fahrenheit, or the input capacity exceeds 400,000 BTU/hr.

Low pressure/temperature boiler. A boiler operating at a steam pressure of 15 psig or less and water boilers in which the pressure does not exceed 160 psig and the temperature does not exceed 250 degrees Fahrenheit.

Domestic Water Heater. A closed vessel used to supply potable hot water heated by fuels, electricity, or any other source in which temperatures do not exceed 210 degrees Fahrenheit.

Central Utility Plant (CUP). A building or area dedicated to the mechanical and electrical equipment. The building must contain a boiler that provides heat to multiple buildings and has one or more of the following: chiller, generator, or switchgear. In a stand-alone facility such as a detention center, an area of the building containing a boiler that provides heat to multiple areas and has one or more of the following: chiller, generator, or switchgear, is also considered a CUP.

Remote Utility Building (RUB). A building or area dedicated to mechanical and electrical equipment. The building must contain one or more of the following: hot water heater, chiller, generator, switchgear, or related equipment.

Direct Supervision. Qualified operating engineer supervising boilers through all shifts.

Remote Supervision. The ability to supervise the operation of boilers electronically from the boiler location to the CUP, Control Center, or other manned location.

4. MECHANICAL SYSTEMS CHANGES

Modifications or additions to existing building mechanical or utility systems must comply with the requirements outlined in Chapter 2 and must not take place (other than routine maintenance or replacement of like components) without the prior written approval of the Regional Facilities Administrator.

Fuel-burning appliances must be equipped with U.L. listed devices that will shut off the fuel to both the main burner and pilot burner if failure of the pilot burner or spark igniter occurs.

Fuel-burning equipment must be assured a sufficient supply of combustion air, as outlined in applicable codes and the manufacturer's installation manual.

Circulating air and conditioned air supplies for heating, cooling, or evaporative cooling systems is to be conducted through duct systems. These systems are to be constructed of metal or factory-made air duct material approved for the use intended and must meet the requirements in the applicable codes.

All new and replacement HVAC and refrigeration systems are to be sized and installed in accordance with applicable codes:

- All insulating material must meet EPA standards and the IECC.
- Make-up air will be incorporated in all new facilities and renovations in accordance with ASHRAE standards.
- Energy Star High efficiency type HVAC units are to be used wherever practical.
- The replacement of cooling equipment must be accomplished with environmentally safe equipment and use EPA-approved refrigerants.

Pressure vessels will not be used in Bureau facilities without official symbols or markings denoting them as inspected and approved by the ASME Standard.

5. BOILER SUPERVISION

Direct Supervision must be provided for all high pressure/temperature boilers located in a CUP. A waiver for direct supervision of hot water high pressure/temperature boilers for a specific time of year, weekends, holidays, evening shift, and/or night shift may be submitted to the Regional Facilities Administrator for approval. Prior to a waiver request being submitted, management

and the Union shall mutually agree to the waiver request. The waiver request must have a detailed justification on why direct supervision of the entire CUP (boilers, generators, etc.) is not necessary during these times, and a plan showing how the current compliment of operating engineers will be utilized. At institutions with multiple CUPs, a minimum of one CUP must be directly supervised through all shifts. A waiver is not permitted for this CUP. The other CUPs at these institutions can be remotely supervised per the requirements of this chapter.

All high pressure/temperature boilers that are not directly supervised must be remotely supervised per the requirements of this chapter.

In CUPs requiring direct supervision, the foreman may vacate the plant up to 60 minutes. If the boiler is remotely supervised, per the requirements of this chapter, this can be extended to 120 minutes.

Direct supervision is not required for low-pressure/temperature boilers and domestic water heaters.

Direct supervision waivers that were approved prior to the issuance of this policy are valid as long as the remote supervision meets the requirements of this chapter. Remote supervision requirements per this policy must be addressed within one year of the issuance of this policy. After the one-year period, additional extensions/waivers will not be granted.

6. REMOTE SUPERVISION

Boilers that are required to be remotely supervised must comply with the guidelines in ASME Code: Controls and Safety Devices for Automatically Fired Boilers (CSD-1). The latest edition of CSD-1 must be available (hard copy or printed electronic copy) in the CUP. The remote supervision plan must also comply with applicable ASME, ANSI, and other codes.

When Bureau policy, code, or state or local requirements are modified, remote supervised boilers are to be updated to conform to the new standards.

The institution is to have at least one qualified and competent Facilities staff member in power plant operations to operate and maintain remotely supervised boilers during normal working hours.

Remote boiler operating instructions are posted at each remote location and the Control Center listing institution personnel authorized to monitor the boilers and make necessary adjustments. At a minimum, the instructions provide the proper method of shutdowns in an emergency.

Only a qualified and competent Facilities staff member in power plant operations is allowed to troubleshoot, restart, and make repairs after a boiler is shut down by an alarm sensor. Inmates are not allowed to make repairs to or start up a boiler without direct supervision of a qualified Facilities staff member.

The Facility Manager, with input from the local Union, must submit a detailed remote monitoring plan to the Regional Facilities Administrator for approval prior to remote supervision being implemented:

- The plan must include electrical, mechanical, and alarm annunciation schematics and a complete list of alarm and operating set points in the Building/Energy Management Control System. Sensors must be affixed to each boiler and wired to an annunciation panel(s) in the CUP, Control Center, or manned location.
- The plan must comply with ASME, CSD-1, ANSI, and other applicable codes.
- Any changes/modifications to the approved remote supervision plan must be submitted to the Regional Facilities Administrator for review and approval.
- A copy of the approved plan must be maintained on file in the Facility Department.

7. SHIFT ROTATION

At CUPs with multiple shifts, a formal rotation schedule must be implemented in accordance with the Master Agreement.

Each engineer is required to become familiar with all phases of CUP operations. All staff in related trades such as heating, air conditioning, and ventilation (HVAC), and steam fitter supervisors will be cross-trained in CUP operations whenever possible. Other facilities foremen may volunteer and be approved to be alternate operators and cross-trained in CUP operations. The Facility Manager ensures the training plan meets the requirements of this chapter and includes the local union as defined by the Master Agreement Article 21.

The CUP must have at least one operating engineer and at least one inmate during each manned shift. Additional inmates may be assigned to accomplish specific plant operations.

8. AS-BUILT DRAWINGS

Each institution is to maintain up-to-date drawings of its site utilities including:

- Water and sewer lines.
- Gas lines.
- Hot water heating lines.

- Tunnels.
- Steam lines.
- Chilled water lines.
- Points list.
- System modifications.
- Additions, etc.

See Chapter 14 for the identification of gas lines and manholes.

See Chapter 14 for Annual Gas Line Inspection requirements.

9. ENGINEER'S DAILY LOG

An Engineer's Daily Log (see the FROG) is kept at each CUP and signed by the shift operating engineer. The General Foreman/Chief of Utilities reviews and signs each daily log. With the Regional Facilities Administrator's approval, institutions may customize the Engineer's Daily Log, as long as the modifications contain, at a minimum, all applicable information on the log. In addition, a bound engineer's logbook is kept on every shift to record shift activities. A bound engineer's logbook must be kept for all high pressure/temperature boilers. The log must include a complete plant synopsis, abnormal conditions, and a detailed explanation of ongoing activities in the plant. Logs may be maintained electronically with the approval of the Regional Facilities Administrator. In addition to the Daily Logs, the Monthly Utilities Report (see the FROG) must be completed to document utility usage. Utility consumption data is entered into CMMS as applicable. This log can be customized to meet institutional needs. All logs are to be kept on file for five years.

The daily log is to include all water treatment program information as contained in this chapter.

Flue gas analysis (see the FROG) must be conducted each shift an operating engineer is present. Flue gas analyzers are to be equipped with printer capabilities. A printout of the tests is attached to the daily log. Flue gas analyzers must be calibrated by an independent testing agency annually and documented in CMMS. Proof of calibration is affixed to the analyzer or maintained on file in the Facilities Office.

Thermal and combustion boiler efficiency are to be calculated daily for each operational boiler located in the CUP and entered into the Engineer's Daily Log. Efficiency of operational boilers outside the CUP must be checked monthly.

Thermal and combustion efficiency must be calculated utilizing a flue gas analyzer or by an industry standard calculation. Thermal efficiency calculations take into account feed water, condensate, and/or return water temperatures.

10. WATER TREATMENT PROGRAMS

a. **Treatment and Testing.** A water treatment and testing program is to be established to protect boilers, cooling towers, and chilled and hot water systems. Institutions that operate more than one CUP (steam or hot water) are required to perform daily water tests on boilers. Institutions that have boilers located outside a CUP are to perform tests no less than weekly. Institutions must ensure that these programs and chemicals meet all applicable environmental regulations.

b. **Boiler Water Treatment.** Steam and closed loop hot water boilers require a chemical treatment program to minimize scaling, corrosion, and carryover. The boiler water chemical treatment program must be developed by a certified testing agency and/or incorporate the following:

- Total hardness of makeup water for water tube boilers must be less than 0.5 PPM and fire tube boilers less than 1.0 PPM.
- Residual phosphate concentration of boiler water must be between 30 and 60 PPM.
- Alkalinity must maintain a PH level between 7.0 and 10.5 for boiler water.
- Sodium sulfite is to be used as an oxygen scavenger. The residual concentration of sodium sulfite is to be between 30 and 50 PPM. When the boiler is placed in wet lay-up, the sodium sulfite can be increased up to 100 PPM.
- Chemical dispersant and synthetic polymers are to be added for sludge conditioning and precipitation.
- Blow-down is to be performed to reduce the concentration of solids and prevent carryover. The limits of conductance must be between 2,500 and 4,000 microhms. In no case may the blow-down be carried to make concentration of solids less than 2,000 microhms. Automatic blow-down systems are recommended. If automatic blow-down systems are used, they must be calibrated annually and documented in CMMS.
- Neutralizing or filming agents are to be used to prevent corrosion of condensate return lines. A PH between 7.5 and 9 is to be maintained in all condensate return lines.
- Treatment chemicals on systems feeding food service equipment must meet the requirements of National Sanitation Foundation (NSF-USDA) classification code G7.

c. **Cooling Tower Water Treatment.** The cooling tower water chemical treatment program must be developed by a certified testing agency and/or incorporate the following:

- A biocide water treatment is to be used to prevent growth of algae and scaling.
- Blow-down is to be performed periodically to reduce the concentration of solids. Automatic blow-down systems are recommended.
- Corrosion control methods must be implemented; however, chromium, zinc, or other heavy metals may not be used.

d. **Chilled and Hot Water Systems Water Treatment.** Nitrate water treatment is to be used as an inhibitor to control both corrosion and scale deposits. Use of chromates is prohibited.

e. **Domestic Water Treatment.** Test for residual chlorine in the domestic water supply daily.

f. **Consulting Services.** All institutions are to obtain the services of a certified testing agency to assist in developing and/or conducting a water treatment program. A copy of the entire (boilers, chillers, etc.) water treatment plan must be maintained on file in the CUP and Facilities Department. These services are to include:

- Instructions to all operators in correct water treatment testing procedures.
- Schedule of testing frequency.
- Monthly visits to observe and complete an onsite analysis.
- A monthly report outlining any discrepancies and recommended corrective action.

All reports will be reviewed by the Facility Manager on a monthly basis and a Work Order issued to correct any discrepancies.

11. INSPECTION OF PRESSURE VESSELS

The Facility Manager is responsible for ensuring that boilers are inspected as required by this chapter.

Institutions are to use the current National Boiler Inspection Service Contract to perform boiler inspections. No agreements may be entered into with any other source for inspections without prior approval by the Chief of Facilities Operations, Central Office.

Institutions must pay all costs of boiler inspections.

When the boiler inspection is completed, discrepancies identified during the inspection must be corrected via a Work Order. The Work Order is the Plan of Action. A copy of the Work Order will be included in the inspection file. If the repair work requires B&F funding, documentation must be provided to ensure inclusion in the institution B&F Program. The boiler inspection file must be maintained on site for five years.

12. INSPECTION OF BOILERS

Each operating engineer must be familiar with the current ASME/NBIC codes regarding inspection of boilers. Five types of inspections are conducted:

- Type “A.” Visual Internal and External Inspection of Boilers and Domestic Water Heaters: As required by the equipment manufacturer.
- Type “B.” Internal and External Inspection with Hydrostatic Test. An internal test is not required on boilers that do not have manholes to give internal access to equipment. The test may not exceed 1-1/2 times the Maximum Allowable Working Pressure (MAWP) stamped on the boiler. ASME, Section VI, Hydrostatic testing procedures, must be followed.
- Type “C.” External Inspection under Pressure. This includes lifting the safety valves to determine whether the valves open and close within allowable tolerances under steam boiler pressure. (Lifting hot water relief valves by pressure is not required on water heating-type boilers.)
- Type “D.” External Inspection under Hydrostatic Pressure: As required by the equipment manufacturer.
- Type “E.” Visual External and Internal Inspection (if possible) of other pressure vessels and tanks.

a. **Inspection of High and Low Pressure/Temperature Boilers.** The approved boiler inspection service must conduct a type “B” and “C” inspection of all steam boilers and high pressure/temperature water boilers annually. A type “C” inspection must be conducted on all low pressure/temperature water boilers annually. Inspections are to meet the requirements of the NBIC (NB-23). During annual inspections, boilers with fusible plugs must have the plugs replaced. A Type “B” inspection does not need to be conducted if the independent boiler inspector determines it does not meet the inspection criteria. The lack of inspection will be noted in the boiler inspection report.

b. **Inspection of Domestic Water Heaters.** Domestic water heaters with storage tanks that exceed 120 gallons, or with fuel heat input greater than 200,000 BTUH, must have a type “C” inspection biennially per the NBIC (NB-23). Qualified Bureau staff may conduct inspections of domestic hot water heaters. Inspections must be documented in CMMS.

c. **Inspection of Other Pressure Vessels.** Deaerators, expansion tanks, condensate tanks, etc., must have a type “E” inspection annually per the NBIC (NB-23) Section RB-6420. Qualified bureau staff may conduct these inspections. Inspections must be documented in CMMS.

13. NEW OR RELOCATED BOILERS

New boilers and boilers relocated within Bureau facilities must be installed to meet all ASME codes, latest edition. The boiler must be inspected and certified by the manufacturer's representative for safe/satisfactory operating condition and to ensure the installation does not deviate from the original equipment design or use. After being inspected and certified, the ASME "A" certificate holder stamps and dates the boiler and/or provides documentation, as required. Documentation as per the ASME must remain on file for the life of the equipment. In addition, the approved boiler inspection service must conduct a type "B" and "C" inspection prior to placing the boiler in service.

Before design, purchase, or installation of any new boiler, the Facility Manager must ensure the boiler complies with all state, local, and Federal air quality regulations and obtains any required permits.

14. BOILER REPAIRS

Repairs and alterations to boilers and unfired pressure vessels by welding can be made only by a contractor holding an ASME "R" stamp, in accordance with Chapter III of the National Board Inspection Code. Once repairs are completed, the contractor must complete the National Board Form R-1, then stamp and date the nameplate or provide certifying documentation as required. Documentation as per the ASME must remain on file for the life of the boiler. In addition, the approved boiler inspection service must conduct a type "B" and "C" inspection prior to placing the boiler in service.

15. SAFETY VALVES

Repairs and adjustments of safety valves are only to be performed by the manufacturer or a valve repair company. A National Board VR nameplate must be affixed to the repaired valve. Whether the valve is repaired or adjusted, the breaking of the seal, the setting of the valve, and/or the resealing of the valve is to be documented. High pressure/temperature boilers are not certifiable unless all safety valves are sealed and tagged.

Each steam boiler must contain at least one ASME rated safety valve to allow pop action when tested by steam at or below the MAWP of the boiler.

Each water boiler must contain at least one ASME rated pressure relief valve set to relieve at or below the MAWP of the boiler.

Each domestic water heater must contain at least one ASME rated pressure/temperature safety relief valve of the automatic-reseating type, set to relieve at or below the MAWP of the boiler.

Safety valves must be inspected monthly. Hand-lift the safety valve try-lever on the boilers to the fully opened position and allow it to discharge for 5 to 10 seconds. Release the try-lever and allow it to snap shut. Leaking safety valves must be repaired or replaced. The safety valve is never to be lifted at less than 80% of normal operating pressure. This inspection may be waived if the safety valve is inspected and certified annually by an independent testing agency or manufacturer. Documentation must be maintained on file.

16. COMBUSTION CONTROLS

For combustion control safeguards (burner safety electronic controls), the electronic equipment must be repaired to meet National Fire Codes or ANSI/ASME CSD-1 requirements, as applicable. To ensure safe operating conditions, repairs to flame safeguard electronic equipment may be made only by the manufacturer or its authorized representative. In-house corrective maintenance may be conducted when authorized by the Facility Manager.

17. CUP/RUB MAINTENANCE, INSPECTIONS, AND TESTING

Refer to NB-370 and NB-23 for boiler Inspection and Testing requirements.

Maintenance and inspections on boilers, chillers, and CUP/RUB equipment must be conducted per the manufacturer's recommendations. The Facility Manager develops a schedule of procedures in CMMS for inspections, testing, and preventive maintenance for boilers, chillers, and related equipment based on policy, code, and the manufacturer's recommendations. Dates of inspections, tests, costs, and maintenance activities are documented in CMMS.

Discrepancies identified during annual and biennial inspections, tests, and preventive maintenance are corrected via a Work Order. A copy of the Work Order must be maintained in the inspection file. If repair work requires B&F funding, documentation is provided to ensure inclusion in the institution B&F Program.

The Facilities Department must maintain copies of all manufacturers' operating manuals, the latest edition of ASME, and state environmental regulations related to CUP/RUB operations.

All boilers and chillers in CUPs/RUBs and all high pressure/temperature boilers must be equipped with hour meters to record total hours of operation and ensure an accurate preventive maintenance program.

a. **Daily Inspections.** Per shift, each operating engineer inspects all major components of CUPs and RUBs. This includes boilers, generators, chillers, cooling towers, switchgear, pumps, etc. Any unusual conditions are to be reported in the Engineer's Log Book. Faulty conditions are remedied immediately and documented in CMMS.

Each operating engineer is responsible for performing the following and documenting the results in the Engineer's Log Book:

- Check the water level in boilers by blowing down the water columns and gauge glass.
- Test the low water fuel cut-off control by blowing down the float chamber.
- Inspect and check all running auxiliary equipment for proper temperature, pressure, lubrication, and excessive vibration.
- Check the water level in the deaerator and expansion tanks.
- Observe flame condition.
- Perform a Flue Gas Analysis.

b. **Weekly Inspections.** Inspect CUPs, RUBs, mechanical rooms, and tunnel piping (where applicable) for leaks and general condition.

c. **Monthly Inspections**

- Test and clean flame detection devices and associated automatic fuel cut-off valves. Loss of flame should shut off flow of fuel to the burner.
- Inspect and operate all linkages and damper controls to ensure proper operation.
- Test all limit/cut-outs and operating controls.
- Test all floor and blow-down drains for proper drainage.
- Check all stop, check, and drain valves.
- Check combustion air supply for obstructions and adequacy of airflow.
- Inspect recording, indicating, and integrating boiler meters, steam flow meters, and pressure gauges. Calibrate, adjust, repair, or replace as required.
- Inspect chemical feed equipment for satisfactory operation.
- Inspect all fuel, ash-handling equipment, and fuel storage facilities for damage and leakage.
- Inspect all temperature regulators on water heaters for satisfactory operation.
- Inspect all pressure reducing stations for satisfactory operation.
- Inspect all pumps throughout the facility to ensure proper operation.
- Inspect chlorination and metering equipment for satisfactory operation, where applicable.
- Where feasible, manually operate all valves to ensure proper operation.

d. **Quarterly Inspections.** On a quarterly basis, inspect the following:

- Boiler handhole/manhole plates.
- Condition of insulation.
- Soot blower equipment.
- Fuel burning equipment.
- Forced and induced draft equipment.
- Boiler piping.
- Valves for leaks.
- Fuel burning safety devices.
- Combustion air louvers for cleanliness and proper operation.

e. **Semi-annual Inspections**

- Inspect the waterside of the boilers for evidence of scale, oil, corrosion, sagging, loose rivets, loose stay bolts, internal piping disarrangement, etc.
- Inspect the fireside of the boilers for defective baffles, slag on tubes, position and effectiveness of soot blower elements, conditions of brick settings, setting expansion joints, leaking dampers, conditions of inspection doors, condition of grates, and fuel burning equipment.
- Test, calibrate, and adjust combustion control equipment.
- Piping, insulation, pressure-regulating stations, thermostatically operated valves, etc., must be inspected for replacement of inefficient material and defective or worn parts.
- In-house semi-annual boiler inspections do not supersede the mandatory annual contracted inspections.

f. **Annual Inspections**

- All high pressure/temperature boilers must be inspected by the approved boiler inspection service.
- Inspect condensate receivers internally for corrosion and scaling.
- Calibrate all pressure gauges located in CUPs/RUBs and on all boilers, chillers, and cooling towers by comparison to an inspector gauge or by using a deadweight tester. Each gauge tested must have a calibration sticker affixed showing date of calibration. Institutions using the inspector gauge method must have the gauge calibrated by a qualified lab every 12 months.
- Ensure temperature gauges located on all boilers and chillers are operating properly.
- Inspect and repair all steam traps for proper operation.

- Visually inspect all pumps associated with the heating and cooling systems. Repair worn or defective parts.
- Open, inspect, and repair feed water heaters and economizers.
- Test and inspect all relief valves on non-fired pressure vessels to detect any leakage or weakness:
 - Pressure vessel openings for relief valves may not be reduced to accept smaller relief valves; discharge piping from the relief valve may not be reduced.
 - All relief valves are to be sized and piped so they relieve pressure adequately and safely.
- The annual inspection of chillers must be per the manufacturers' recommendations and include the following:
 - Inspect the starters and electronic controls for signs of overheating.
 - Inspect the control panel for cleanliness.
 - Check refrigerant charge.
 - Inspect for vibrations and unusual noises in bearings, motors, etc.
 - Conduct internal inspection for corrosion/fouling.
 - Clean/punch tubes as needed.
- The annual inspection of cooling towers must be per the manufacturers' recommendations and include the following:
 - Ensure proper draft.
 - Check cooling media and sumps for cleanliness.
 - Ensure proper operation of float.
 - Ensure proper operation of chemical injection and blow-down equipment.
- Visually inspect condition of asbestos-containing material in CUPs. This is only to be conducted by properly trained staff members using personal protective equipment per Federal and state regulations.
- Ensure all boiler remote supervision systems are functioning properly.

g. Biennially

- All electronic boiler and steam flow devices/meters must be calibrated by a manufacturer's service representative.
- Perform a hydrostatic test on all deaerator and boiler expansion tanks to detect any leakage or weakness.
- Each vessel must be tested at 1-1/2 times the stamped design working pressure.

- Documentation of the inspection is maintained on file for the life of the equipment.

18. INSPECTIONS AND TESTING OF WATER SUPPLY SYSTEM

The following section is applicable to institutions that treat potable water. Refer to Chapter 14 of this policy for Inspection and Testing of Water Supply Systems requirements.

Water treatment schedules and procedures will be documented in CMMS. Discrepancies identified during annual and biennial inspections, tests, and preventive maintenance are corrected via a Work Order. A copy of the Work Order must be maintained in the inspection file. If repair work requires B&F funding, documentation is provided to ensure inclusion in the institution B&F Program.

a. Weekly

- Inspect booster pumps for satisfactory operation.
- Inspect chlorination and metering equipment for satisfactory operation.

b. Monthly

- Facilities that are receiving drinking water from other than a public or private utility system are required to obtain monthly water samples at various taps to guard against water supply contamination. These samples will be tested by a certified laboratory serving the area where the institution is located. Unless otherwise appointed, the institution Safety and Environmental Health Administrator conducts the testing.
- Per manufacturers' recommendations, maintain metering equipment to ensure correct portions of chemicals are dispensed. A record of chemical use and amount of water treated must be maintained.
- Inspect intakes to booster pumps to assure free flow to the pumping equipment.
- Where large reservoirs are the source of water supply, introduce the proper chemicals for controlling algae. Keep the shores of such reservoirs clear of vegetation at all times.

19. POWER PLANT SAFETY

Staff or inmates may not enter boilers, water/fuel tanks, and all other enclosed spaces without a Confined Space Entry Permit. (Refer to the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**.)

When working in and around boilers and metal tanks, all electrical hand tools must be protected with ground fault circuit interruption (GFCI).

Only low voltage DC type lights may be used within the boiler and other metal-type enclosed spaces.

Explosive proof lights are to be used where required. Staff and inmates may not enter an area where there is a flammable or explosive atmosphere. The area is ventilated using OSHA guidelines prior to staff or inmate entry.

20. COLOR CODING

Power plant equipment and related distribution systems must be color-coded as per 29 C.F.R. §1910.253, which specifies the use of ANSI Standard A13.1 1981. The use of standard OSHA Safety Colors or Federal Standard 595 colors is specified.

In general, adherence to the color coding standards applies to any material conveyed in a piping system. The ANSI standard delineates materials into three classifications (see table (2) of the ANSI standard for further regulation). Bureau facilities may use the total length method or the intermittent display method for color application.

Positive identification of the contents of a piping system must be by lettered legend and given the name of the contents in full or abbreviated form.

Attention is to be given to visibility with reference to pipe markings. The size of the legend lettering must adhere to the ANSI standard.

The standard colors are as follows:

YELLOW (safety yellow) Federal Standard # 13519

Steam lines and valves, ammonia, blow off water, boiler feed, chlorine, fuel oil and gas, compressed air, condensate returns, domestic hot water, high pressure/temperature air, hot water, refrigerant, and any other materials that could be considered inherently hazardous.

RED (safety red) Federal Standard # 11105

Fire protection systems and apparatuses, automatic fire sprinklers, fire protection water, halon, and any other fire quenching materials.

BLUE (safety blue) Federal Standard # 15092

Air, argon, filtered water, instrument air, inert gas, and any other materials that are inherently low hazard.

GREEN (safety green) Federal Standard # 14120

Circulating water, city water, cold water returns or supply, cooling water, distilled water, emergency showers, makeup water, potable water, soft water, storm sewer, plumbing vents, waste drains, etc.

21. UTILITY USAGE REPORTING

The Facility Manager or designee is responsible for entering utility usage data in CMMS by the 15th of each month for the previous reporting period. Upon completion, the report is printed and routed for the required signatures, then filed in the applicable folder.

See Chapter 16 for additional utility usage reporting requirements.

Chapter 12. ELECTRICAL SYSTEMS

1. GENERAL

This section pertains to various types of electrical systems used throughout the Bureau. All electrical installations, maintenance, inspections, and tests must meet the requirements of the latest version of the following codes and regulations:

- National Electrical Code (NEC)(NFPA 70).
- Electrical Safety in the Workplace (NFPA 70E).
- Recommended Practice for Electrical Equipment Maintenance (NFPA 70B).
- Standards for Emergency and Standby Power Systems (NFPA 110).
- Code of Federal Regulations (C.F.R.), Occupational Safety and Health Standards (29 C.F.R. § 1910).
- Code of Federal Regulations (C.F.R.), Safety and Health Regulations for Construction (29 C.F.R. § 1926).
- Code of Federal Regulations (C.F.R.), Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions (40 C.F.R. § 761).
- Standard for the Installation of Lightning Protection Systems (NFPA 780).
- BOP Technical Design Guidelines.

More stringent and specific requirements in this Program Statement may be specified. Maintenance, inspections, and tests that are required per this chapter, and/or by the applicable codes and regulations, must be entered into and tracked in CMMS.

2. RESPONSIBILITIES

a. **Regional Office.** The Regional Facilities Administrator is responsible for the overall administration of electrical systems within his/her area of responsibility. Responsibilities include:

- Providing support and guidance to the Facility Manager in developing and maintaining an effective planning program for all electrical systems.
- Reviewing the Annual Preventive Maintenance data in CMMS for all electrical systems.
- Notifying the Chief, Facilities Operations, when any major electrical equipment or primary feeds (switchgear, generator, building transformer, etc.) are not functioning for over 48 hours.

b. **Institution.** The Facility Manager is responsible for the overall administration of electrical systems. Responsibilities include:

- Notifying the Regional Facilities Administrator when the electrical systems or any part of the electrical systems are not functioning for more than 24 hours and that may expose hazards, or affect the safety and security of the facility.
- Updating/adding asset data and preventive maintenance documentation in CMMS on all major electrical equipment.
- Coordinating the installation, maintenance, testing, and labeling of all electrical system equipment.
- Ensuring all safety related to electrical work follows electrical safety standards.
- Scheduling inspection, testing, and preventive maintenance of all electrical equipment, including electric generating equipment.
- Labeling electrical equipment with arc flash hazard. It must be reviewed periodically, not to exceed 5 years, to account for changes in the electrical distribution system.
- Ensuring all electrical workers have sufficient training.
- Based on the position description, determine which employees are Qualified High Voltage Electrical Workers and are allowed to work on energized systems.
- Reviewing annual energy consumption and informing the Regional Facility Administrator of possible power shortages.

3. ELECTRICAL SYSTEM CHANGES

Permanent changes in institution electrical distribution systems of the following types may not be initiated without the Regional Facilities Administrator's prior written approval (see Chapter 2, Modification of Existing Facilities):

- Modification or alteration of high voltage switchgear, including removal of interlocking devices.
- Shifting or addition of connected load in excess of 50 KW where transformers or feeders are affected.
- Changes, extension, or removal of feeders with potential in excess of 600 volts.
- Removal of ground fault circuit interruption (GFCI) devices located in panels or electrical enclosures.

The change request must contain:

- A description of the proposed alteration and an explanation why the change is necessary or desirable.
- Information on the magnitude of electrical loads or currents involved.
- Detailed scale drawings or dimensional sketches indicating the extent of the work to be performed.

Electrical materials and equipment for new installations must be in accordance with the BOP Technical Design Guidelines and NEC.

4. ELECTRICAL SAFETY

Based on the position description, only qualified staff familiar with code requirements and safety standards, and experienced in the type of work, may work on electrical circuits and equipment. NFPA 70E and OSHA 29 C.F.R. 1910.269 contain qualified person requirements. Particular attention should be given to the safe disconnection and connection of high voltage circuits, grounding of de-energized high voltage circuits and proper care and use of electrical safety equipment. Under no circumstances will non-qualified staff work on high voltage. The qualification of staff is based on NEC and NFPA 70E requirements (latest editions).

Based on the Position Description, the Facility Manager is to ensure that staff assigned to work on high voltage electrical systems have the knowledge necessary to accomplish the assigned work safely and in accordance with the NEC and NFPA 70E. High voltage is determined to be that in excess of 600 Volts AC.

Only qualified staff, as outlined in NFPA 70E Article 100, may work on electric circuit parts or equipment that have not been de-energized under the lockout and tagging procedures of 29 C.F.R. § 1926.417. Per NFPA 70E, an Energized Electrical Work Permit must be utilized when working on energized circuits or equipment. Such staff, while working on energized circuits, must:

- Understand how to use special tools and special work procedures.
- Know the clearance requirements for high voltage equipment, and barrier and barricading requirements.
- Utilize proper personal protective equipment.
- Understand special hazards associated with high voltage equipment.
- Have the skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment and to determine the nominal voltage of exposed live parts.
- Understand special procedures and tools for extracting personnel from energized circuits.
- Understand the workspace and guarding specified in the OSHA standard.

Staff are required to use special precautionary techniques, personal protective equipment, insulation and shielding material, and insulated tools.

Non-qualified staff/non-facilities staff and inmates are prohibited from working on any energized electrical circuits or equipment.

The Facility Manager is to ensure that written instructions are available for all staff who work on electrical equipment and systems that identifies the proper methods to disconnect, lockout/tagout, and ground de-energized equipment and, after work is accomplished, to re-energize equipment. A lockout/tagout program must be implemented per 29 C.F.R. § 1926.417, OSHA (29 C.F.R. § 1910.147), and NFPA 70E.

The Facility Manager must ensure that live-line tools comply with appropriate tests. The institution must have the proper live-line tools only if they perform in-house work that requires such tools. All protective equipment is to be tested as follows:

- Live-line tools (hot sticks, fuse pullers, etc.) must be examined, cleaned, repaired, and tested per OSHA (29 C.F.R. § 1910.269(j) and NFPA 70E. At a minimum, live-line tools must be removed from service every 2 years, and tested by an independent testing agency.
- Protective equipment (insulating line hose, covers, blankets, gloves, and sleeves) is to be tested by an independent testing agency as outlined in OSHA (29 C.F.R. § 1910.137). If possible, tested gloves shall be returned in bag sealed by the testing agency and remained sealed until utilized. Procedures shall be established locally to track testing and in-service dates.

Rubber Insulating Equipment Test Intervals

Type of equipment	When to test
Rubber insulating line hose	Upon indication that insulating value is suspect and after repair.
Rubber insulating covers	Upon indication that insulating value is suspect and after repair.
Rubber insulating blankets	Before first issue and every 12 months thereafter; ¹ upon indication that insulating value is suspect; and after repair.
Rubber insulating gloves	Before first issue and every 6 months thereafter; ¹ upon indication that insulating value is suspect; after repair; and after use without protectors.
Rubber insulating sleeves	Before first issue and every 12 months thereafter; ¹ upon indication that insulating value is suspect; and after repair.

¹If the insulating equipment has been electrically tested but not issued for service, it may not be placed into service unless it has been electrically tested within the previous 12 months.

Test results are to be provided to the Facility Manager and Environmental and Safety Compliance Administrator. The Facilities Manager maintains copies of the test results on file for two years.

Shoes worn by electricians are to be electrical hazard non-conductive type.

Personal protective equipment (PPE) must be provided and utilized per NFPA 70E. Workers must have PPE appropriate for flash hazard while conducting work on energized electrical equipment. All PPE must be properly stored at the work site and maintained.

Where feasible, high voltage lines must be marked to identify their location. Where above-ground power lines are readily accessible, they will be identified by signs stating “**Danger - High Voltage**” (per the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**). The Facility Manager must ensure all high voltage lines are properly identified prior to any excavation on institution grounds.

High voltage transformers, switch gear, manholes and vaults must be locked and labeled “**Danger - High Voltage,**” as required by OSHA (29 C.F.R. § 1910).

Electrical equipment, such as switchboards, panel boards, industrial control panels, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized, must be labeled to warn qualified persons of potential electric arc flash hazards, as stipulated in NEC 110.16.

5. TRAINING

Training requirements apply to staff exposed to an electrical hazard. Training must include:

- The understanding of specific hazards associated with electrical energy.
- Safety-related work practices and procedural requirements, as necessary, to provide protection from the electrical hazards associated with their respective job or task assignments, and
- Identifying and understanding the relationship between electrical hazards and possible injury.

The training required must be classroom, previous on-the-job, or a combination of the two.

Each electrician, within 1 year of appointment and every 3 years thereafter, must complete NEC and NFPA 70E Training (Central Office Funded).

6. POLYCHLORINATED BIPHENYL (PCB)

Oil used in electrical equipment as an insulating medium or coolant is to be tested for PCBs per 40 C.F.R. § 761.2(b). If PCBs are present, the equipment must be labeled per 40 C.F.R. § 761, 40-45.

These tests are to be coordinated with the institution Environmental and Safety Compliance Administrator per the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection**.

The Facility Manager is to ensure that required documentation is present indicating that PCB testing has been conducted on all electrical equipment (transformers, switches, etc.) located on institution property (including non-institution owned). Documentation is not required on non-institution owned equipment if the equipment is properly labeled per 40 C.F.R. § 761, Subpart C.

Procedures and records relating to PCB use, storage, and disposal must be maintained in accordance with 40 C.F.R. § 761.

Electrical equipment containing PCBs must be provided with a means of containment (curbs, sumps, etc.) to prevent the contents from discharging into floor drains, sewers, waterways, soil, etc. The means of containment are to be of sufficient size to hold the contents of the equipment, plus 10%.

7. GENERATING EQUIPMENT

a. **Responsibilities.** Each Facility Manager is to initiate a preventive maintenance, inspection, and testing program for emergency/standby generating equipment. The identified maintenance, inspections, and tests are to have individual task requirements, schedules, and staff labor estimates entered into CMMS. Documentation of work completions is to be maintained in CMMS.

b. **Maintenance.** Generating equipment must be maintained in accordance with the manufacturer's recommendations and the latest version of NFPA 110. Suggested maintenance schedules for emergency power supply equipment are contained in NFPA 110, Annex A.

c. **Logbook.** A qualified operator must maintain a generator logbook in the generator room. This logbook is to be bound (not loose leaf) and contain the following information for each generator:

- Date.

- Start time.
- Stop time.
- Total operating time.
- Load/no load operation.
- Operating voltage.
- Operating amperage and amperage shed.
- Operating Hertz.
- Engine operating temperature.
- Engine operating oil pressure.
- Comments.
- Signature.

d. **Operating Procedures.** Proper procedures for starting and operating generating equipment are to be posted adjacent to the equipment. These procedures are to include a description of the equipment's operational capabilities and limitations (capacity, flexibility, capability of load distribution and transfer, start-up and shutdown procedures, etc.).

e. **Generating Rooms.** Electric generating equipment and rooms housing this equipment are to be clean, free of storage, and structurally sound. Equipment rooms must be provided with a fire extinguisher and battery-powered emergency lights to supply adequate lighting for activating the generator.

f. **Upgrades.** If an institution is upgrading generating systems, it must consider upgrading to carry the full load of the institution.

8. PRIMARY DISTRIBUTION SYSTEMS

All high voltage distribution switches are to have indicating lights to show if the switch is energized or not. Visual and electrical tests must be performed if power distribution is not evident. Maintenance and inspections must be performed per the requirements of NFPA 70B.

9. SECONDARY DISTRIBUTION SYSTEMS

Main distribution panels and branch circuit panel boards must be balanced to distribute loads between phases evenly.

Main distribution panels and branch circuit panel boards are to be labeled with manufacturers' data (size, type, model number, capacity, etc.). Panels and panel boards must have all circuits labeled as to what they serve. Although panels and panel boards do not have to be entered into

CMMS as individual assets, maintenance and inspections must be completed per NFPA 70B and documented in CMMS.

All disconnects are to be marked as to their purpose in accordance with the NEC.

10. GROUND FAULT PROTECTION

Ground fault circuit protection and interrupters must be provided per the requirements of the NEC and NFPA 70E. Refer to the BOP Technical Design Guidelines for Bureau-specific requirements.

Circuits protected by GFCI breakers or devices are to include only receptacles and equipment. GFCIs must be provided per the requirements of the NEC.

11. LIGHTNING PROTECTION AND ELECTRICAL DISTRIBUTION SYSTEMS

The Facility Manager is to ensure that all lightning protection systems, electrical power distribution systems, and spaces containing microprocessor-based equipment are designed and installed in compliance with:

- The latest version of NFPA 780.
- The latest version of the NEC.
- The most current Federal Information Processing Standards Publication (FIPS PUB) – Guidance on Electrical Power for ADP Installations.
- Manufacturer’s recommendations for grounding.
- BOP Technical Design Guidelines.

To protect computerized electronic equipment from being damaged by induced lightning, switching alternating current (AC) power lines, and voltage transients generated within the facility, the Facility Manager must ensure that the design of the AC electrical power system includes surge protection devices (SPDs) at the point of use.

AC power to computerized electronic equipment and uninterruptible power systems is to have SPDs installed on the load side of the main disconnect, in accordance with the following specifications:

- All SPDs must be listed to UL 1449. SPDs are to have the lowest surge voltage rating (SVR) per UL 1449 that is consistent with the nominal line voltage (for example, 120 VAC nominal line voltage would require a 330 volt peak SVR).
- SPDs must be connected with the shortest leads possible.

- Protection modes must be **only** phase-to-phase or phase-to-neutral suppression. Phase-to-ground or neutral-to-ground suppression may not be installed.
- For extended life and long-term reliability, only silicon avalanche or like technology is to be installed. Gas tubes and metal oxide varistors may **not** be used.
- Suppression dissipation capability of the SPDs is determined by the device's location in the facility.

Instrumentation, DC signal, data telephone, and other low voltage lines must be protected from transients induced by lightning and transients resulting from close proximity to power distribution conductors.

12. RACEWAYS AND CONDUCTORS

All electrical raceways and conductors must meet the requirements of the BOP Technical Design Guidelines.

13. INSPECTIONS AND TESTING

Inspection of electrical systems must be consistent with all provisions contained in this chapter. All inspections and tests must be conducted by a qualified staff member, testing agency, or outside contractor. Refer to Chapter 5 for reporting, resolving, and documenting inspections and tests.

The Facility Manager is responsible for electrical inspections and testing as prescribed in the latest version of NFPA 70B. The inspections and tests included in this section are standard requirements. NFPA 70B must be referenced for all applicable requirements at your facility. The identified inspections and tests must have individual procedure requirements, schedules, estimated staff time, completion dates, costs, and actual staff time entered into CMMS. All discrepancies must be documented per Chapter 5.

These guidelines do not include all conditions appropriate to each institution. Therefore, at the Regional Facilities Administrator's discretion, an institution may elect to develop a customized inspection and testing plan. These customized plans must be developed in accordance with requirements contained in NFPA 70B and approved by the Regional Facilities Administrator. Upon request, the Regional Facilities Administrator must provide guidance and assistance on issues related to all required inspections and testing.

a. **Semi-Annual Electrical Inspection**

- Visually inspect transformer vaults for faults, cleanliness, proper ventilation, and improper use for storage.
- Visually inspect transformer connections for primary and secondary terminations, lightning arresters, and ground connections.
- Visually inspect all dry-type transformers for cleanliness of windings and enclosure. Ensure that vents for enclosures are not blocked. Check environment surrounding the transformer to ensure adequate ventilation is available.
- Visually inspect primary switchgear to confirm that proper size fuses are used and adequate spares are on hand.
- Visually inspect overhead distribution systems, ensuring that poles, cross arms, insulators, guy wires, braces, lightning protection, etc., are in good condition. Also ensure that trees or other obstructions are not interfering with these systems. It's recommended to contact the local electric provider to perform this service.
- Visually inspect low voltage underground cables and splices in access holes or pull boxes for insulation damage and ground and shield connections. Visually inspect enclosure for cleanliness, signs of rodents, and presence of water. Where appropriate, check drains for blockage.
- Visually inspect all low voltage, main distribution, and branch circuit panel boards. This inspection must include all connections for indications of insulation breakdown such as cracking or burning.
- Visually inspect uninterruptible power supplies (UPS) and inverters. Check batteries for cracking, distortion, bad connectors, or leakage; replace as needed. Visually inspect grounding and cooling fan operation.
- Confirm that proper size fuses are used and adequate spares are on hand.
- Check for corrosion or other evidence of water penetration within the panel. (Special attention should be given to panels located and exposed within the Food Service areas).
- Verify the high voltage equipment indicating lights to show if the switch is energized or not. Electrical tests must be performed if power distribution is not evident.
- Main distribution panels and branch circuit panel boards are to be labeled with manufacturers' data (size, type, model number, capacity, etc.). Panels and panel boards must have all circuits labeled as to what they serve.
- All disconnecting services for motors, appliances, and service feeders are to be marked as to their purpose.
- Inspect exterior compound and perimeter lighting for proper function. Ensure that all photoelectric cells or time clocks controlling exterior lighting are properly set and calibrated. Check all ground connections for tightness and frayed or damaged conductors. Provide the same inspection for the perimeter fence ground system.

- Inspect equipment requiring electrical disconnects to ensure proper type and size disconnects are being used. Inspect cords and conductors for proper size and type. Where required, inspect mechanical connectors, strain relief, and bonding devices. Ensure that all disconnects are properly marked to identify equipment served.

b. Annual Electrical Inspection.

- Perform a visual inspection on each primary circuit, where possible. Load readings must be documented on all primary transformers during peak load conditions. Where current transformer capability is not available, alternative methods for obtaining primary loads are as follows:
 - The power company can supply information if separate metering is available.
 - Secondary low voltage current readings can be taken and used to calculate the primary load.
- Ensure protective devices are adjusted to reflect changes in load characteristics. (Protective relay calibration must only be performed by a qualified testing agency or manufacturer's representative.)
- Arrange, as needed, for electrical power down time to perform the following checks and maintenance, in addition to the required semi-annual inspections:
 - Tighten all switchgear, transformer cable, bus connections, switchboards, switches, disconnects, automatic transfer switches, and generator cables; particular attention must be given to primary connections. In lieu of physically checking every connection, an infrared scan may be performed to identify loose connections.
 - Clean all switchgear, transformer, and panel enclosures and interiors if they appear dirty. Cleaning materials specifically designed for cleaning high voltage cable, bus bar, and transformer windings are to be used.
 - Manually exercise all switching operations to ensure proper and smooth operation.
- Transfer switches must be inspected per the requirements of NFPA 100 and NFPA 70B.
- It is recommended the annual electrical inspection be performed by a qualified contractor or testing agency.

c. Biennial Electrical Inspection. Conduct a biennial inspection of the facility per the criteria in the FROG. The Facility Manager is responsible for proper scheduling of the inspection and for review of the results.

At the Regional Facilities Administrator's discretion, an institution may elect to develop a customized inspection and testing plan. The Regional Facilities Administrator must approve any customized plan, which is to be developed in accordance with requirements contained in NFPA 70B.

Narrative comments, either affirmative or negative, must be made on each item on the Electrical System Inspection.

If conditions in a given area warrant lengthy recommendations, these are to accompany the inspection report, referring to the outline by page and item number and identifying problem areas by building number, transfer vault number, etc.

The inspection report is to be maintained until the next biennial inspection is completed. Upon request, a copy is to be forwarded to the Regional Facilities Administrator.

d. Switch/Transformer Oil Testing

- **Five Year Oil Test.** Oil not containing PCBs in electrical equipment must be tested every five years, unless the manufacturer recommends otherwise. Electrical equipment that has had PCB-containing oil replaced with non-PCB oil must be tested under the five-year program.
- **Two Year Oil Test.** Oil containing PCBs in electrical equipment must be tested every two years.

The Facility Manager must maintain transformer testing results on file for the life of the transformer.

e. Generator Tests and Inspections. The staff responsible for maintaining the equipment (determined locally) will also be responsible for conducting inspections and tests.

A monthly emergency/standby power generator load test must be conducted per the requirements of NFPA 110. The generator is run under load for a minimum of one hour. The fuel consumed to perform the test must be documented in CMMS. Associated electrical equipment is checked for proper operation and adjustment of:

- High voltage switches.
- Electronic faults are addressed (if applicable).
- Exciters.
- Interlocks.
- Rheostats.

- Voltage regulators.
- Instruments.

At the Regional Facilities Administrator's discretion, a load bank of sufficient capacity may be used to meet load testing requirements.

f. **Annual Lubricant Test.** A qualified lubricant testing service is to conduct a "Failure Analysis" test on all generators' engine oil and coolant. The analysis is to include all recommended tests specified by ASTM (D) Standards for Fuel and Oil analysis Volumes 501 and 502, and the lubricant's manufacturer. This must include tests for wear, contaminant, non-metallic contaminants, and additive metals. The testing service analyzes the data and identifies any issue that could lead to equipment failure. The testing service provides a report that makes recommendations on corrective actions, and how to extend the life of the equipment. Copies of these reports are to be maintained for five years.

g. **Internal Engine Inspection.** Diesel engines are to be inspected internally for wear, clearances, and condition of parts after 4,000 hours of operation, or more often if annual oil analysis testing indicates possible engine problems. A factory representative may make repairs and replacements when appropriate.

h. **Grounding System Test.** All grounding systems must be tested annually to ensure that design conductivity is maintained. It should be noted that individual electrical systems require different levels of conductivity: transformer equipment cabinets, perimeter fencing, lightning protection, electronics equipment, etc.

Chapter 13. PHYSICAL PLANT REVIEW PROGRAM

1. GENERAL

The Long Range Master Plan (LRMP) Program is a management tool for determining physical plant and infrastructure requirements of the Bureau's older institutions and corresponding budget requirements that will be needed to make and keep them operational for the next 25-30 years.

The LRMP Program objective is to establish a comprehensive long-range master plan, which identifies short- and long-term efforts needed to renovate the entire physical plant. It also provides a logical sequence for funding and accomplishing the renovation work in phases.

2. RESPONSIBILITIES

a. **Central Office.** The Chief, Facilities Programs Section, will retain the services of professional architect/engineers to conduct, manage, develop, and oversee all physical plant and infrastructure surveys, studies, evaluations, cost estimates, value engineering, feasibility studies, etc., associated with development of a final LRMP for each institution. Central Office will schedule all surveys.

Central Office will fund all LRMP Projects and review and approve all Statements of Work, plans, and specifications related to implementing associated LRMP Program design and construction projects.

b. **Regional Office.** The Regional Facilities Administrator will provide contract design and construction resources, as needed, for implementing Central Office-funded LRMP Program projects for institutions in his/her region.

c. **Institutions.** Facility Managers will provide the Central Office, Chief, Facilities Programs, all historical physical plant and infrastructure plans, data, equipment information, etc., deemed necessary to conduct onsite physical plant and infrastructure surveys with professional architects and engineers.

Chapter 14. PLUMBING SYSTEMS

1. COMPLIANCE

All work related to new and existing plumbing systems must meet the requirements of the latest version of the International Plumbing Code (IPC). See Chapter 11 for piping and equipment identification requirements.

Grease trap/interceptors must be operated, maintained, and cleaned per all Federal, state, and municipal regulations and permit requirements. In an effort to minimize the amount of fats, oils, and grease (FOG) entering the wastewater system, installation of new or replacement pulpers or garbage disposals is prohibited. With written approval from the Regional Facilities Administrator, pulpers and garbage disposals may be used in institutions that have a Bureau-owned and -operated wastewater treatment plant.

Institutions must employ strategies for cross-connection control and backflow prevention on all potable water systems. Backflow prevention devices must be installed and maintained in accordance with Federal, state, and local codes and regulations.

2. PLUMBING SYSTEM ALTERATIONS

New plumbing systems and modifications to distribution lines from the utilities company take-offs to the building entrance (or shutoff valves) for water, sewer, gas, and storm sewers must not be made without the Regional Facilities Administrator's prior written approval. See Chapter 2 for additional modification to existing facilities requirements.

3. UNDERGROUND UTILITIES

Waste and storm water manholes must be secured per the requirements of the Technical Design Guidelines.

All underground gas lines are to be identified by signs at the surface. These signs must be located every 300 feet on the run of the lines, at every junction, and where lines change direction.

4. METHODS AND MATERIALS

Domestic hot water at the fixture must have a temperature range from 100 to 120 degrees Fahrenheit. The final rinse cycle temperature is to be a minimum of 180 degrees Fahrenheit for dishwashers. The wash cycle temperature is to be a minimum of 160 degrees Fahrenheit for

laundry washers. Approval from the Chief, Facilities Programs, is required prior to any deviation from the prescribed dishwasher and laundry hot water temperatures.

Domestic water piping must not be installed in electrical and security electronic equipment rooms.

Piping installed in air handling spaces (plenums) must comply with the standards in NFPA 90A.

The Facility Manager must ensure that all hazardous, flammable, and corrosive materials are handled, stored, and disposed of per Federal, state, and local regulations.

The Facility Manager must ensure that all work performed by staff and inmates is performed safely, and meets the requirements of OSHA.

Plastic, vinyl, or flexible piping is not permitted on waste and domestic water lines unless it meets the following exceptions:

- Existing systems.
- Water connections between a fixture and the main/riser. The maximum length allowable is 2 feet.
- Ice machine drains.
- Flexible connections for the purpose of vibration reduction. The maximum length allowable is 1 foot.
- In staff housing where IPC allows.
- Flexible braided hoses are permitted.
- With the Regional Administrators' approval.

For new installations, renovations, or replacements, plumbing fixtures must meet the requirements of the Technical Design Guidelines. For new construction and renovations where space allows, plumbing fixtures must be installed per the quantities required by ACA.

5. PREVENTIVE MAINTENANCE, INSPECTIONS, AND TESTING

Preventive maintenance, inspections, and tests are to be performed per applicable codes and manufacturers' recommendations, and scheduled in CMMS. All discrepancies identified during inspections must be documented per Chapter 5. If the discrepancy must be corrected immediately, it will be assigned as a priority 1 Work Order. If the discrepancy requires B&F funding, documentation must be provided to ensure inclusion in the institution B&F Master Planning (see Chapter 3). Once B&F funding is available, corrective work must commence immediately.

a. **Grease Traps/Interceptors.** Grease traps/interceptors must be inspected monthly and cleaned/pumped by a licensed company every six months, or when the grease level exceeds 50% of the tank's capacity. Under no circumstances may the pumped grease be returned to any private or public portion of the wastewater collection system or treatment plants. Written records of grease removal are filed in the Facilities Office.

b. **Backflow Preventers.** Backflow preventers must be inspected and tested per all state and local codes and regulations. Backflow prevention assemblies are to be tested by a qualified person at installation, repair, or relocation, and at minimum annually. Inspections must be documented using a state-approved or NFPA 25 form.

c. **Bar Screens and Waste Auger Equipment.** Bar screens and waste auger equipment owned by the institution must be inspected and tested per manufactures' recommendations. At a minimum, the equipment must be inspected monthly to ensure there is no accumulation of trash and debris blocking the flow.

d. **Wastewater Outflows.** At institutions with Bureau-owned and -operated wastewater treatment plants, outflows must be inspected daily to ensure that there is no debris blocking the flow. These inspections are only required on days that the plant is staffed.

e. **Annual Gas Line Inspection and Testing.** Per NFPA 54 (latest edition), all natural, propane and other flammable gas or fuel distribution system lines are to be surveyed and tested for leaks annually by an independent testing agency. The inspection report must identify the leaks as Grade 1 (severe), Grade 2 (significant), and Grade 3 (minor). Repairs are as follows:

- Grade 1 leaks must be repaired **immediately** following their discovery.
- Grade 2 leaks must be repaired immediately after all repairs have been made for Grade 1 leaks. In no case should repairs to Grade 2 leaks be made later than two weeks (10 working days) after discovery.
- Grade 3 must be repaired immediately after all repairs have been made for Grade 1 and 2 leaks. In no case should repairs to Grade 3 leaks be made later than four weeks (20 working days) after discovery.

All discrepancies identified during the annual gas line inspections must be corrected and documented via a Work Order and filed in the inspection folder.

f. **Wastewater Treatment Facilities Inspection.** The inspection must be conducted in accordance with Federal, state and local environmental regulations and codes. This requirement

applies only to Bureau-owned facilities. The inspection/test is to be conducted at least annually or as required by applicable regulations and codes (the most stringent applies).

A qualified source is to be used for the inspection/test. Inspectors from the state or local regulating agency or an engineering firm specializing in wastewater treatment systems and environmental issues may be considered a qualified source.

g. **Inspection and Testing of Water Supply Systems.** Inspections must be conducted in accordance with NFPA 22 and 25 (latest editions), EPA, the American Water Works Association (AWWA), and state and local requirements. At a minimum, the following must be conducted:

- **Pump Inspection.** Annually inspect and test deep well pumps to insure proper operation of pumps and adequate flow rates to maintain the institution's required pressure.
- **Water Storage Tank Inspection.** Every three years or according to manufacturer recommendations (must be on file at the site), inspect internal and external surfaces of all water storage tanks. Inspections must check for evidence of corrosion, pitting, or signs of weakness.

Chapter 15. ACCESSIBILITY

1. GENERAL

The Bureau must comply with the Architectural Barriers Act (ABA) Standards, as adopted by the General Services Administration (GSA) in 2006. This applies to existing areas, new construction, alterations, and renovations. The ABA Scoping Requirements provides guidance with regards to the accessibility of existing areas.

2. CONSTRUCTION REQUIREMENTS

Plans and specifications must be submitted as specified in Chapter 2, Modifications of Existing Facilities.

The Central Office Design Compliance Program Manager, Facilities Programs, Facilities Management Branch, must review all designs that affect the accessibility of an institution. The Design Compliance Program Manager recommends approval or disapproval to the Chief, Facilities Program Section.

3. REASONABLE ACCOMMODATIONS

The Bureau must provide reasonable accommodations to qualified individuals with disabilities, unless doing so would cause undue hardship.

When a request for reasonable accommodations is made, the Facility Manager or designee assesses the area to determine if it can be modified. Assistance from the Regional Facilities Administrator should be requested to ensure all methods of accommodations are being explored. Written documentation, including requests, proposals, responses, approvals, and denials, will be maintained on file indefinitely.

Chapter 16. ENERGY/WATER CONSERVATION AND GREENHOUSE GAS

1. INTRODUCTION

a. **General.** The purpose of this chapter is to:

- Define Bureau program objectives concerning energy/water conservation and greenhouse gas.
- Establish conservation goals and deadlines.
- Set operational standards.
- Provide for accountability.
- Standardize reporting.

b. **Policy.** The Bureau conducts conservation-related activities under the prescribed Executive Orders and statutes in a cost-effective, efficient, and environmentally friendly manner. This chapter establishes procedures that will enable the Bureau to be responsive to these requirements. The current directives are Executive Order 13693, the Energy Policy Act of 2005, and the Energy Independence and Security Act of 2007. New and controlling directives applicable to energy conservation will be posted on the Central Office Facilities Management Branch Sallyport page or can be located on the Department of Energy website.

c. **Program Objective.** Maintain the agency's mission while ensuring all Bureau-controlled facilities are operated in an efficient manner to reduce energy and water consumption.

2. RESPONSIBILITIES

Each Regional Director is responsible for the energy conservation program for all activities within his/her region.

Each Warden is responsible for the energy conservation program for all activities within his/her institution. Each Warden must ensure that the institution meets its established yearly reductions and provide reports to the Assistant Director for Administration through the Regional Director.

The FPI Engineering Division Manager must provide technical support to the Warden and the institution Energy Conservation Committee to develop a plan to reduce energy and water consumption in FPI operations. The developed plan must not conflict with the agency's progress towards achieving current Executive Orders and regulations.

Through life cycle cost-effective measures, each institution is to reduce energy and water intensity to achieve established energy and water conservation goals. Energy and water

conservation projects must be evaluated by the Facility Manager to ensure that the overall savings outweighs the cost of implementation. At the request of the Regional Facilities Administrator, this evaluation is submitted to the Regional Energy Conservation Coordinator (RECC) for review.

Energy conservation and greenhouse gas issues related to motor vehicle management are found in Chapter 10 of this manual.

2. DEFINITIONS

Baseline – A specified period of metered utility consumption, used as a point of reference for comparison purposes.

Base year – A 12-month period used as a point of reference for comparison purposes.

Energy/Water Intensity – Building energy/water use of all sources divided by the gross square footage.

Executive Order – A rule or order issued by the President to an Executive Branch of the Government and having the force of law.

Greenhouse Gas – Any of various gaseous compounds that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect.

Life Cycle Cost Analysis. – Method of assessing the total cost of facility ownership.

Ozone – Ozone is a bluish gas that is harmful to breathe. Nearly 90% of the Earth's ozone is in the stratosphere and is referred to as the ozone layer. Ozone absorbs a band of ultraviolet radiation called UVB that is particularly harmful to living organisms. The ozone layer prevents most UVB from reaching the ground.

Ozone-Depleting Substance(s) (ODS) – Stratospheric ozone is constantly being created and destroyed through natural cycles. Various ozone-depleting substances (ODS), however, accelerate the destruction processes, resulting in lower than normal ozone levels. ODS include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride, hydrobromofluorocarbons, chlorobromomethane, and methyl chloroform. ODS are generally very stable in the troposphere and only degrade under intense ultraviolet light in the stratosphere. When they break down, they release chlorine or bromine atoms, which then deplete ozone. A detailed list of class I and class II substances numbers is available.

Reclaim (Refrigerant) – To reprocess refrigerant to at least the purity specified in the ARI Standard 700-1993, Specifications for Fluorocarbon Refrigerants, and to verify this purity using the analytical methodology prescribed in the Standard. Reclamation requires specialized machinery not available at a particular job site or auto repair shop. The technician will recover the refrigerant and send it either to a general reclaimer or back to the refrigerant manufacturer.

Recover (Refrigerant) – To remove refrigerant in any condition from an appliance and store it in an external container without necessarily testing or processing it in any way.

Recycle (Refrigerant) – To extract refrigerant from an appliance and clean it for reuse without meeting all of the requirements for reclamation. In general, recycled refrigerant is refrigerant that is cleaned using oil separation and single or multiple passes through devices, such as replaceable core filter-driers, which reduce moisture, acidity, and particulate matter. Under section 609, refrigerant can be removed from one car's air conditioner, recycled onsite, then charged into a different car.

Set-back – Reducing or shutting off heating or cooling energy to a space/zone during unoccupied or low usage times to save energy.

3. ENERGY CONSERVATION COMMITTEE

All Bureau and UNICOR locations must implement regulations, directives, and guidelines to achieve the energy conservation program objective.

Each Regional Facilities Administrator is to designate a Regional Energy Conservation Coordinator, whose responsibilities include:

- Disseminating all directives and guidelines to institutions and field offices within the region.
- Monitoring conservation programs within the region.
- Consolidating and verifying the accuracy of all energy, water, and greenhouse gas reports within the region prior to submitting them to the Central Office.
- Supplying prompt and accurate responses to energy, water, and greenhouse gas data calls.
- Providing oversight and support of Energy Performance Contracts within the Region.

Institutions are to issue an Energy Conservation Institution Supplement that requires the following actions:

- Establish an Energy Conservation Committee (ECC) to manage the institution's energy conservation program. The Associate Warden for Operations or other designee of the Warden is to chair the Committee. Committee members include: Facilities Manager, General

Foreman, department heads, Union representative (mandatory notification), and line staff willing to participate. Normally, a minimum of 6 staff will attend. Meeting minutes are to be entered in CMMS in accordance with reporting procedures in this chapter.

- Department heads are to monitor the activities in their respective areas to ensure energy conservation measures are in place and being followed.
- Establish an employee awareness program by publicizing conservation practices. This could be accomplished by announcements at department head meetings, annual staff training, recalls, monthly staff meetings, special notices posted on bulletin boards, and messages in news memoranda.
- Make maximum use of the incentive awards program to recognize energy conservation contributions by individuals and groups.
- Establish procedures for the Institution Duty Officer to comment on compliance of conservation practices observed during his/her tour of duty.
- Ensure that life cycle cost analyses are completed for all major energy-consuming equipment (boilers, chillers, generators, etc.). It is recommended that Energy Star and Water Sense type products be used, if available.

The ECC is to meet quarterly. Two of the four meetings must be held in conjunction with the semiannual Work Program Committee Meeting (WPC). WPC meetings are held in March (in conjunction with Master Planning) and October. The other two meetings are held in June and December. Each meeting is to include the following agenda items:

- Review previous quarter's energy and water consumption, with comparison to the previous quarter, previous year, and the approved base year.
- Review employee and inmate conservation suggestions and provide recommendations on each item.
- Review newly issued directives and guidelines on conservation techniques and requirements.
- Review conservation goals and institution progress toward meeting them.
- Consider recommendations on proposed retrofit projects for energy and water conservation.
- Reporting will be conducted as outlined in this chapter.

4. **BUILDING ENERGY MANAGEMENT**

The following requirements are consistent with Department of Energy directives, Bureau policy, and Executive Orders. They apply to all Bureau-owned and -controlled buildings. Only the Regional Facilities Administrator may grant exceptions.

a. **Cooling and Heating Seasons.** For the purpose of this policy, cooling season (summer) is from May to October and heating season (winter) is from October to May. Seasonal months may vary depending on the institution's geographical location. During the changeover from the

cooling to heating season and vice versa, there may be days when air conditioning or heating is not provided even though the outside air temperature may require it. Due to the type of equipment utilized, it is not feasible for the power plant/equipment to alternate between cooling and heating on a daily basis.

b. **Temperature Set Points during Seasons.** Temperature set points will be targeted to 76 degrees Fahrenheit in the cooling season and 68 degrees Fahrenheit in the heating season. All spaces will be maintained as close to the targeted set point as possible. However, due to issues such as the age of the cooling and heating systems and the inability to control temperatures in individual spaces, occupants may experience a range of temperatures in their space that is a few degrees on either side of the targeted set point.

Unoccupied areas will be set at 55 degrees Fahrenheit for the heating season and 80 degrees for the cooling season. Where applicable, the Building Management System or other programmable devices will use set-back features while the building is unoccupied outside of normal working hours.

c. **Exceptions.** Hospital rooms are exempt from these requirements if warranted for medical reasons; however, if the administrative or other portions of such buildings have separate heating controls, these requirements cover such areas.

Information Technology server rooms and other critical areas (Control Center, PABX, radio and elevator control rooms, etc.) containing communication equipment are exempt. Reference the associated equipment specifications for proper cooling temperatures. Cooling temperatures must not exceed manufacturer's prescribed equipment operating temperature requirements. Exemptions are approved through the Regional Facilities Administrator.

d. **Miscellaneous**

- Cooling energy may not be used to achieve the temperatures specified for heating.
- Overheated areas must be cooled by reducing the heat source rather than opening windows.
- Space heaters are not energy-efficient and are not authorized by other BOP policies. Portable heaters may be used for temporary heat on new construction, remodeling projects, and emergency situations.

e. **Ventilation.** Institutions must provide minimum ventilation rates to maintain human comfort in accordance with the Guide Book for the American Society of Heating and Refrigeration and Air Conditioning Engineers (ASHRAE). However, outside air intake should be reduced to the greatest extent feasible during heating and cooling seasons.

Ventilation systems must be turned off in unoccupied spaces whenever possible.

f. **Lighting.** Lighting levels for specific areas within Bureau facilities must conform to standards identified in the Program Statement **Occupational Safety, Environmental Compliance, and Fire Protection.**

During non-working hours, lighting is to be eliminated, except where necessary for safety and security.

Use of lighting controls such as occupancy sensors, timers, or similar types of devices must be implemented to the maximum extent practical. Implemented lighting controls must not hinder safety and security.

When replacing or retrofitting lighting fixtures, the most energy efficient products will be explored.

g. **Water Heating.** Refer to Chapter 14 of this manual for water heating requirements.

h. **Operations and Maintenance.** At many institutions, utility distribution systems were installed without zone or branch controls. In some cases, steam to buildings and facilities is controlled by estimating the need based on outside temperatures. Every effort should be made to provide controls that supply steam only on an as-needed basis, with boilers fired as efficiently as possible.

All equipment using energy is to be inspected, cleaned, lubricated, and adjusted for optimum operations to realize maximum efficiency from the energy consumed.

Each employee is responsible for energy conservation in the Bureau. Although Facilities Department employees are responsible for providing heating, cooling, hot water, electricity, and other services, energy conservation cannot be their responsibility alone.

5. PERFORMANCE CONTRACTING – ESPC and UESC

Financed projects provide a means for agencies to overcome budget resource constraints in order to make energy, water, and greenhouse gas improvements to facilities with limited to no up-front capital costs.

a. **Contract Types**

- **Energy Savings Performance Contract (ESPC).** An ESPC is a partnership between a Federal agency and an energy service company (ESCO). The ESCO conducts a comprehensive energy audit of Federal facilities and identifies Energy Conservation Measures (ECM) to save energy. In consultation with the Federal agency, the ESCO designs and constructs a project, identifying ECMs that meet the agency's needs, and arranges the necessary funding. The ESCO guarantees that the ECMs will generate energy cost savings to pay for the project over the term of the contract (up to 25 years). After the contract ends, additional cost savings accrue to the agency.
- **Utility Energy Service Contract (UESC).** UESCs offer Federal agencies an effective means to implement energy-efficiency, renewable-energy, and water-efficiency projects. Under 42 U.S.C. 8256, Federal agencies are authorized and encouraged to participate in energy-efficiency, water-conservation, and electricity-demand programs offered by gas, water, or electric utilities. In a UESC, the utility provides the analysis, design, and installation and, when necessary, arranges financing. Agencies may implement a UESC with no initial capital investment or may use appropriated funds strategically to maximize the impact of their projects.

b. **Long-Term Success.** The Facilities Management Branch has developed Standard Operating Procedures (SOP) for Energy Performance Contracts to provide project structure. The National Energy Program Manager must issue the SOP to each institution as Energy Performance Contracts are initiated.

During the performance period, it is the responsibility of the Facilities Manager to ensure that all ECMs implemented remain in place, and are monitored to ensure savings are achieved. Operation and maintenance of assets must be conducted in accordance with the contract requirements. Replacement of equipment and devices implemented within a performance contract may only be substituted with similar efficiency-rated equipment or better. Performance contract savings are dependent on a reliable process of Measuring & Verifying (M&V) energy, water, and related measures. The Facilities Manager or designee must witness, verify, and approve all M&V activities conducted by the Energy Service Company (ESCO) or affiliated subcontractor(s). To assist in this effort, the RECC or equivalent regional representative must witness, document, and review M&V practices on an annual basis throughout the project term.

c. **Energy Performance Contract Project Documentation.** Energy Performance Contract Project folders and data must be maintained in a similar format as B&F Projects (see the FROG).

Performance period project management must be documented within the Department of Energy Life of Contract (LOC) document. The LOC includes vital contract documents, descriptive

contractual data on which party will conduct Operations and Maintenance (O&M), Preventive Maintenance (PM), Repair and Replacement (R&R), and the Measurement and Verification (M&V) Plan for the performance period, and includes the specifics of which party (the agency or the Energy Services Contractor), will conduct oversight of these operations. The post-installation document submittals, as they become available, also need to be collected and retained. Examples include the Post-Installation M&V Report and Commissioning Report. This plan provides suggestions on means to track and control these documents, as they are critical to performance period project management.

6. REPORTING

The Bureau is required to report energy, water, and greenhouse gas data to multiple entities. All institutions must have procedures for gathering and entering data in CMMS to enable the generation of various reports. The Facility Manager or designee will send an electronic notification to the Regional Energy Conservation Coordinator by the close of business on the 15th of the month for the preceding month, stating the monthly or quarterly report has been updated in CMMS and is ready for review.

a. **Utility Usage Reporting – Monthly.** The Facility Manager or designee enters the consumption and cost of all purchased utilities in CMMS utilizing totals on utility bills.

All utility meters are to be read each month. Total quantities, including consumption and cost, are to be matched to each utility statement. The Facility Manager must review CMMS entries to ensure data is complete and accurate.

UNICOR is responsible for reimbursing the institution for utility usage.

b. **Energy Performance Contracts (EPC) – Monthly**

(1) **Institution.** The Facility Manager or designee is responsible for entering monthly progress data in CMMS by the 15th of each month for the previous reporting month. Upon printing the EPC Monthly Report, it is routed for required signatures and filed in the applicable project folder. An EPC Monthly report must be maintained for the life of a project and filed in the project folder. A signed copy of the EPC Monthly Report is submitted to the region at the discretion of the Regional Facilities Administrator.

(2) **Regional Office.** Once notification has been received from the institution, the Regional Energy Conservation Coordinator will review the EPC Monthly Reports and provide comments, as needed, to the institution. The region will print and save (electronically or hard copy) the EPC Monthly Reports and maintain them in a separate project folder for the life of the project.

c. **Energy Conservation Report – Quarterly.** All institutions are to enter quarterly meeting minutes in CMMS as outlined in this chapter. The Energy Conservation Report is to address the following:

- Progress toward achieving energy and water conservation goals. Annotate that the committee compared the current quarter utility usage with the previous quarter usage, the previous year usage, and the base year usage. A copy of the following must be attached to the Energy Conservation Report, located on file in the Facilities Office:
 - Energy Comparison to Previous Year.
 - Energy Comparison to Base Year.
 - Monthly Utility bills/invoices for quarter, separated and organized by month and type.
- Issuance of new directives, projects, or initiatives for energy and water conservation. ESPC projects' progress narrative will be addressed as per this chapter.
- Energy and water conservation suggestions made by employees and inmates and what actions will be taken.
- Recommendations for operational changes and projects that will conserve energy and water. (Suggested projects are submitted to the Work Programming Committee).
- Address that completed Performance Contracting (ESPC/UESC) projects are being monitored to ensure equipment is operated and maintained to ensure energy/water conservation measures (ECMs) continue to achieve annual savings.

d. **Refrigerant Reporting – Quarterly.** The Environmental Protection Agency (EPA), under the Clean Air Act, established regulations in 40 C.F.R. § Ch. I, Subch. C, Pt. 82 for servicing, disposing, and reporting of refrigeration and air conditioning systems. In compliance with the EPA regulations and current Executive Orders, certified refrigerant users must maintain refrigerant records including, but not limited to:

- EPA 608 certifications.
- Certified refrigerant recovery or recycling equipment.
- Refrigerant inventory:
 - Purchases.
 - Recovered
 - Recycled.
 - Reclaimed.
- Refrigerant leakage.

- Leak rates (greater than 50 pounds of refrigerant).
- Disposal of refrigerant systems.

Daily refrigerant records must be maintained within a bound logbook or electronic database by the certified technician (HVAC, Garage, Utility Systems Repairer-Operator, etc.).

To enable proper reporting of Ozone Depleting Substances (ODS) to the US Department of Energy, the Facility Manager or designee must enter refrigerant records into CMMS quarterly. Annual refrigerant records will be reported within the Agency's Greenhouse Gas and Sustainability Report by the National Energy Program Manager.

Chapter 17. HISTORIC PRESERVATION

1. GENERAL

This chapter establishes procedures for identifying, preserving, and managing all Bureau properties that may meet the criteria for eligibility to the National Register of Historic Places, under the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. § 470). Provisions of this Act establish the Bureau's responsibility for protecting Bureau-owned or controlled historic properties and for making use, to the maximum extent feasible, of historic properties available to the agency. It encompasses an identification and preservation program to evaluate and nominate properties to the National Register of Historic Places, and to protect historic properties and cultural resources. This also establishes Bureau assessment and reporting requirements of historic properties, as mandated by Executive Order 13287 (March 2003), Preserve America.

The goals of the Bureau program are:

- Historic properties under Bureau jurisdiction or control, will be identified, evaluated, renovated, managed, and reported on, in accordance with the National Historic Preservation Act (NHPA) of 1966, Executive Order 13006 (May 21, 1996), and Executive Order 13287 (March 2003), Preserve America.
- Eligible properties will be managed and maintained by the Bureau to preserve their historic, archaeological, architectural, and cultural values.
- The preservation of properties not under the Bureau's jurisdiction, but potentially affected, will be given full consideration in planning.
- The Bureau's preservation-related activities will be carried out in consultation with other Federal, state, and local agencies; Native Americans; Native Hawaiian organizations carrying out historic preservation planning activities; and with the private sector, and will be coordinated by the Chief, Facilities Programs, with assistance from Regional Offices.
- The Bureau's procedures will comply with Section 106, 110, 111, and 402 of the NHPA of 1966, as amended, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1972, and the Native American Graves and Repatriations Act of 1993.

2. RESPONSIBILITIES

Consistent with the Bureau's mission and mandates, Central Office, with assistance from Regional Offices, will carry out its projects in accordance with the purposes of NHPA and give consideration to programs and projects that will further the purposes of NHPA. In this regard, Central Office will implement the program for the identification, evaluation, preservation, and

maintenance of historic properties and cultural resources. The Chief, Facilities Programs, is the Bureau's Historic Preservation Officer.

Each Regional Director will designate a preservation officer, who must coordinate all efforts on the local level for its respective institutions, and report all findings to the Bureau Historic Preservation Officer.

The Facility Manager at each institution is responsible for ensuring compliance with Bureau policy for any work with potential impacts on historic or cultural properties and resources. The Facility Manager will coordinate any planned work with the Regional Office preservation officer and the Chief, Facilities Programs.

3. REFERENCES

National Historic Preservation Act (NHPA) of 1966. Legislation intended to preserve historical and archaeological sites in the United States. The Act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices. The Act requires Federal agencies to evaluate the impact of all Federally funded or permitted projects on historic properties (buildings, archaeological sites, etc.) through a process known as Section 106 Review.

Section 106 of the National Historic Preservation Act (NHPA). Requires Federal agencies to consider the effects of Federally funded projects on historic properties and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on such projects prior to the expenditure of any Federal funds. Section 106 covers a broad range of projects, including construction, renovation, repair, or rehabilitation; ground disturbances; and changes to an area's visual characteristics.

Section 110 of the National Historic Preservation Act (NHPA). Establishes special preservation responsibilities for Federal agencies, with an emphasis on property management activities.

Executive Order 13287 (March 2003), Preserve America. Encourages Federal agencies to seek partnerships with state, tribal, and local governments and the private sector to make more efficient and informed use of these resources for economic development and other recognized public benefits.

REFERENCES

Program Statements

1237.13	Information Security Programs (4/31/2006)
1240.05	Records and Information Management Programs (9/21/2000)
1600.09	Occupational Safety, Environmental Compliance, and Fire Protection (10/31/2007)
1600.10	Environmental Management Systems (12/14/2007)
2000.02	Accounting Management Manual (2/8/1999)
2310.13	Use of Appropriations (7/13/2000)
2350.02	Accounting for Real Property, Depreciation, and B&F Projects (6/22/2004)
3713.30	Diversity Management and Affirmative Employment Programs (3/25/2016)
3937.01	Electronic Technician Trainee Developmental Program (12/31/1996)
4100.05	Bureau of Prisons Acquisition Policy (3/3/2016)
5251.06	Inmate Work and Performance Pay (10/1/2008)
5500.11	Correctional Services Procedures Manual (10/19/2012)

ACA Standards

4th Edition Standards for Adult Correctional Institutions: 4-4123, 4-4124(M), 4-4137, 4-4137-1, 4-4138, 4-4138-1, 4-4139, 4-4139-1, 4-4147, 4-4153, 4-4169, 4-4197, 4-4211(M), 4-4216, 4-4217, 4-4218, 4-4219

Performance Based Standards for Adult Local Detention Facilities, 4th Edition: 4-ALDF-1A-06, 4-ALDF-1C-12, 4-ALDF-4B-08, 4-ALDF-4B-09, 4-ALDF-1A-20, 4-ALDF-7E-05, 4-ALDF-1B-01, 4-ALDF-1C-12M, 4-ALDF-1C-13, 4-ALDF-1C-14, 4-ALDF-1C-15, 4-ALDF-1B-03, 4-ALDF-1B-04, 4-ALDF-1B-05

2nd Edition Standards for the Administration of Correctional Agencies: 2-CO-2A-01, 2-CO-3B-01M

Other References

- Federal Bureau of Prisons Technical Design Guidelines
- Federal Bureau of Prisons Divisions 27 and 28 Model Documents
- Department of Justice (DOJ) Order 2640.2D Information Technology Security
- Facilities Reference and Operations Guide [FROG]

Other Regulations

- Federal Acquisition Regulation (FAR), including 40 U.S.C. § 541-544
- Code of Federal Regulations (C.F.R.)
- Federal Property Management Regulations (FPMR)

- Architectural Barriers Act (ABA) of 2006
- Executive Order 12699 Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction
- Environmental Protection Agency (EPA) Guidelines for Air and Water Quality and applicable state and local air and water quality environmental regulations.
- Occupational Safety & Health Administration
- The Energy Policy Act of 2005
- The Energy and Independence Act of 2007
- Executive Order 13693 Planning for Federal Sustainability in the Next Decade
- National Historic Preservation Act (NHPA) of 1966

Other Standards

- American National Standards Institute (ANSI)
- National Fire Protection Association (NFPA)
- National Fire Codes (NFC)
- National Electrical Code
- International Code Council (ICC)
- National Board of Boiler and Pressure Vessel Inspectors (NBIB)
- Sheet Metal and Air Conditioning Contractors National Associations (SMACNA)
- NTIA – National Telecommunications and Information Manual Administration
- EIA/TIA – Electrical Industry Association/Telecommunication Industry Association Standards
- American Society of Mechanical Engineers Boiler and Pressure Vessel Codes (ASME)
- National Board Inspection Code (NBIC)
- The National Board of Boiler and Pressure Vessel Inspectors (NBIB)
- National Board Synopsis of Boiler and Pressure Vessel Laws, Rules and Regulations (NB-370)
- American Society for Testing and Materials (ASTM)
- Controls and Safety Devices for Automatically Fired Boilers (ANSI/ASME CSD-1)
- American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE)

BOP Forms

- BP-A0100 Stores Requisition, Invoice and Transfer Receipt
- BP-A0109 Stock Record
- BP-A0111 Report of Survey
- BP-A0509 Bus Inspection
- BP-A0881 Plant Engineer's Daily Log
- BP-A0886 Request for Disposal of Real Property

SF Forms

- SF-91 Motor Vehicle Accident Report
- SF-94 Statement of Witness
- SF-95 Claim for Damage, Injury, or Death
- SF-126 Report of Personal Property for Sale

Records Retention

Requirements and retention guidance for records and information applicable to this program are available in the Records and Information Disposition Schedule (RIDS) on Sallyport.